The Journal

OF THE

Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

VOL. XVII. NOVENBER, 1913. No. 11.

BOARD OF MANAGEMENT.

The usual monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, 11 North Parade, Kingston, on Thursday the 16th October, 1913, at 11.40 a.m. Present: His Bxcellency Sir Wm. Henry Manning, K.C.M.G., C.B. (presiding); Hons. L. J. Bertram, Geo. McGrath, J. R. Williams and S. S. Stedman; Bishop Collins, Rev. W. T. Graham; Wm. Harris Esq., Acting Director of Agriculture, Messrs. A. W. Douet, A. C. L. Martin, E. W. Muirhead, Conrad Watson and the Secretary John Barclay.

An apology for absence was submitted from the Hon. R. P. Simmonds who wrote that he was ill.

The minutes of the previous meeting having been printed and circulated were taken as read.—Mr. Stedman asked that a correction be made on page 5, where the figures "*£100,*" should be altered to, "hundreds of pounds," which was what he had said. With this alteration the minutes were confirmed.

Notices of Motions:—

Mr. Martin gave notice of the following:—

"To ask the Secretary to lay on the table at the next meeting a list of the different Shows to which grants have been made for year ending 31st March, 1914, and if all these Shows have strictly complied with the Rules re Grants to Shows and on what dates were these grants made."

Mr. Stedman gave notice—That at the next meeting he would move a resolution relative to Crown Lands in Portland.

Matters arising out of the Minutes:—

(a) *Motion by Mr. Conrad Watson.*

Mr. Watson moved the motion he had given notice of at the previous meeting:—"That seed cotton be added to Schedule (a) of the Prædial Larceny Law (Law 4 of 1909)."

Mr. Graham seconded, and this was agreed to.

Mr. Watson said that he would like to bring to the notice of the Board that the Rules for the control of the "Leaf Blister Mite" which had been published in the *Gazette*, did not meet the case, and

he asked leave to read the following short paper he had prepared on the subject, and from which the Government might get some hints for amending the rules. The paper is as follows :—

"The rules for the control of the Leaf Blister Mite published in the *Official Gazette* of the 18th September have been framed solely to control the Mite without any consideration of the effect on the cotton crop, and if enforced, more cotton will be destroyed by the rules than by the Mite.

"It frequently occurs that just before the bolls mature or while they are maturing and being picked, Leaf Blister Mite appears in and often over the fields. In such a case it would be ridiculous to uproot and burn the plants and so lose the crop, as a field at that stage will carry its crop to maturity and be no danger to the following crop provided that the plants were cut down and burnt after the crop had been reaped, even as late as one month before planting for the following season commences.

"Leaf Blister Mite occasionally attacks cotton in its early growth, and a large area may have a leaf or two on each tree showing signs of the Mite.

"The remedy for this is to pick off the infected leaves, putting them into a bag as fast as picked and then burning them.

"It is useless to dust the leaves of plants contiguous to infected plants as the Mite appears to be carried by the wind, infected plants being always found in the direction the wind blows from the plants first attacked.

"Sulphur and Lime is a contact poison and to be effective would have to be on the leaves before the Mite got them, and to be kept on the leaves continuously, also it could not be applied after the bolls commenced to open; such treatment is not practicable even if useful.

"A certain amount of discretion has to be exercised; there are times when the crop can be saved by picking off and burning the infected leaves only, but to save the following crop all cotton should be destroyed at least a month before cotton is again planted near."

Mr. Williams suggested that Mr. Watson should prepare amended rules to be sent on to the Colonial Secretary.

This was agreed to.

(*b*) *Cotton Experiments* :—

The Secretary said he had asked for a full report on the condition of the cotton experiments in Southern Manchester and Southern St. Elizabeth, from the Agricultural Instructor of that district, but this had not yet been sent in. From interim reports he had received however, there had been many difficulties. First, in spite of plenty of rain elsewhere, dry weather still prevailed on the Savannahs and on the Pedro Plains, although there was rain at Southfield between these parts. There had also been the same trouble with the cotton seed as with corn—field mice ate it out just as it germinated, and then there was a new trouble—nightingales were reported to be preying on the young plants. He hoped to arrange for the Cotton Committee to visit the Experiment Grounds before next meeting of the Board, and report.

(*c*) *Prize Holdings Competition* :—

The Secretary submitted proposed rules covering a scheme for prizes for holdings of not more than one acre or not less than a quarter of an acre in the parish of Portland, with three scales of prizes—the first with a total of £10, the second a total of £7, and the third a total of £5 He also submitted scale of points. The Instructors Committee had recommended that the second scale of £7 be adopted. There was still some question about the points which needed a good deal of consideration, and he asked that the amount

of £7 be authorized to be included in the next estimates and the matter be again referred to the Instructors Committee to consider this scale of points. This was agreed to.

(*d*) *Produce Protection Law* :—

The Secretary submitted Report of the Conference held *re* the Produce Protection Law, as follows : -

PRODUCE PROTECTION LAW.

I beg to report that in accordance with the instructions of the Board of Management, I called a special meeting for the members of the Board to meet in conference with those most largely interested in dealing in Produce, for the purpose of considering the whole matter of the Produce Protection Law, and suggest Amendments likely to be useful. I sent circulars of invitation to 70 gentlemen, and also by advertisement in the newspapers invited others to attend. The meeting was held at this office yesterday, 15th October at 3.10 p.m. There were present :—

Hons. J. R. Williams and S. S. Stedman, Hon. and Rev. W. B. Esson, Capt. S. D. List (General Manager of the United Fruit Co.) Mr. J. B. Cox, (of the S.S. Smith Company.) Rev. H. B. Wolcott, Messrs. H. E. Vernon, M. Lawton, Rev. S. J. Swaby, Messrs. D. D. Phillips, J. W. Hill, J. C. R Dew, Arthur George, S. Cotter, A. C. L. Martin, R. S. Gamble, A. W. Douet, R. McDonald (Atlantic Fruit Co.) C. F. Pengelly, Rev. W. T. Graham and E. W. Muirhead.

The Hon. J. R. Williams was voted to the Chair.

The Attorney General being engaged in Court could not attend until 4 o'clock.

The following apologies for absence were read :—

Messrs. H. W. Weyrauch & Co., Ocho Rios, St. Ann ; B. A. Kirkham, Esq., Sav.-la-Mar, Westmoreland ; C. L. Helwig, Esq., Alexandria, St. Ann ; Hon. J. M. Farquharson, Appleton, St. Elizabeth ; Messrs. R. K. Tomlinson Bros., Lacovia, St. Elizabeth ; Messrs. A. H. Browne & Bros., Lucea, Hanover ; Messrs. J. E. Kerr & Co., Falmouth ; Messrs. T. Abrahams & Son, Chapelton.

The various recommendations from Branch Societies were read.

The following resolutions were moved :—

By the Rev. W. T. Graham, seconded by Mr. H. E. Vernon, Belfield Branch :—"That produce dealers be prohibited from buying cocoa pods unless they have arrangements made for curing the cocoa such as are approved by an Agricultural Instructor, and also from children, unless they produce an order for the sale of a certain definite number of pods from some cocoa producer known to the produce dealer."

On putting to the vote this was lost.

Hon. and Rev. W. B. Esson moved seconded by Mr. Lawton, Albion Mtn. and Preston Branch.

"That wet and unripe cocoa in pods, should be transferred from Class III. to Class I., of the Produce Protection Law, putting it on the same footing as coffee, etc."

This was carried.

Hon. S. S. Stedman moved and Rev. H. B. Wolcott seconded.

"That the Government be requested to amend the Produce Protection Law in order to have declared buying centres for the purchase of produce, and that no agricultural products be purchased outside these centres."

Mr. C. F. Pengelly moved as an amendment—"That Coffee, Pimento, Ginger, should be excluded from the resolution." Mr. R. S. Gamble seconded.

On being put to the vote the Amendment was lost and Mr. Stedman's resolution was carried by 10 votes to 7.

Mr. Ronald McDonald moved, seconded by Mr. E. W. Muirhead.

"That the Government be asked to exercise more vigilance on behalf of the police to carry out the Produce Protection Law, as it is the opinion of the meeting that this is one of the greatest needs to remedy many of the evils which exist under the Law."

This was carried.

Mr. Arthur George moved seconded by R. S. Gamble:—

"That to prevent Prædial Larceny property owners should be licensed to dispose of their products on paying their taxes free of cost. This measure would prevent the thief being indiscriminately able to sell produce."

This was lost.

Mr, Stedman moved seconded by Mr. H. E. Vernon.

"No license should be given unless to responsible persons, and to those who are able themselves to keep the required books in English."

This was carried unanimously.

Mr. Pengelly moved, "That the age of persons selling Produce shouid be increased from 12 to 15 years."

This was carried.

The meeting then adojurned.

(Sgd.) J. R. WILLIAMS,
Chairman.

After discussion Mr. Martin said, that now that they had got ideas from the Conference, they might appoint a Committee of the Board to consider what amendments were necessary to make the Law active and most useful. He would mention the following names:—Messrs. Stedman, Muirhead, Craig, Douet, Simmonds and Martin, with Mr. Williams who had presided at the Conference, as Chairman, five to form a quorum.

Mr. Muirhead suggested that some of the prominent buyers of produce might be included. This was agreed to, and it was left to the Committee to add the names of representatives of large buying Companies and firms most interested.

The Secretary said he had submitted the opinions of the Branch Societies with regard to the Produce Protection Law, to the Conference; he had these opinions before him now if the Board wanted to hear them. The Board decided that it was sufficient that they had been dealt with by the Conference, and that these opinions could go before the Special Committee if wanted.

(e) *Authorized Persons.*

The Secretary said as regards the explanatory pamphlet with regard to "Authorized Persons" which he had been asked to prepare at the last meeting, he had been quite ready to go ahead with it, but first he had to ask the Agricultural Instructors to give him instances of any difficulties they had found in the working of the Law. He had also written the Colonial Secretary submitting certain points for the opinion of the Attorney General, and he had received a reply. There were other points he had still to put before the Attorney General, which he now submitted. He was instructed to get the opinion of the Attorney General on these points.

The following letters from the C. S. O. were submitted.

(a) *Insecticides & Fungicides:*—

No. [illegible] 9th October, 1913.

"I am directed by the Governor to acknowledge the receipt of your letter No. 4402 of the 24th ult. and in reply to inform you that His Excellency regrets that he is not prepared to reconsider his decision that Insecticides and Fungicides for use in the treatment of diseases of plants should not be conveyed on the railway free of charge."

(Sgd.) ROBT. JONHSTONE,
Assistant Colonial Secretary.

(b) *Sugar Cane Megasse Pulp Making Plant:*—

No. [illegible] 7th October, 1913.

"In continuation of the letter from this Office Nos. 15048/17653 dated the 18th December, 1912, I am directed by the Governor to forward herewith for your information, a copy of a letter from Mr. F. A. Hazard enclosing an estimate for a Sugar Cane Megasse Pulp Making Plant."

(Sgd.) P. C. CORK,
Colonial Secretary.

COPY.

From Mr. F. A. Hazard to the Colonial Secretary.

61 & 62 George Street,
Richmond, Surrey.
August 28th, 1913.

THE HON.
THE COLONIAL SECRETARY,
Jamaica, West Indies.

Dear Sir,

The office of the Crown Agents for the Colonies, Whitehall Gardens, London, S. W., have given me your name asking me to send you an estimate for a Sugar Cane Megasse Pulp Making Plant, from which you will see that the manufacture of paper from Sugar Cane Megasse is remunerative.

I can only say, that so far as I know, no one has had more opportunity to investigate the possibilities of Megasse than I have. For the past eight years a gentleman who is connected with me, has made a study of the possibilities of various by-products, used in other industries, as paper making materials and among others Megasse has been interesting.

It is very difficult to obtain really reliable information but as far as Brazil is concerned, I may state that the gentleman in question to whom I am referring has been trying boilings of Pernambucco and Alagoas sugar cane. He stated

that these boilings which were obtained by means of a very old fashioned and obsolete plant gave only :—

38%	Fibre.
7.5%	Sugar.
1.5%	Glucose.
50.50%	Water.
2.50%	Incombustible substances.

He gave also a very minute discription of the Texas process in which the Megasse was first of all left fermenting by piling same in large heaps frequently drenched with water in order to destroy the pektinelements. Next about 20 tons of this stuff at a time are boiled in rotary boilers with 950 pounds of dry soda and 250 pounds of unslaked lime under a pressure of 90 pounds to the square inch, the stuff formed, washed, and conveyed to the paper making machine. In this way 20% of the raw material is used and a very strong wrapping paper made which costs about 2 cents per pound.

But my friend maintains that this process cannot be compared to mine, which he admired very much.

He also stated that the Texas sugar cane megasse resulted in—

82%	Water.
16.5%	Fiber.
0.65%	Carbon. Hydrate.
0.75%	Ash.

As regards Brazil in the State of Rio de Janeiro Municipality of S. Fidelis on the left bank of the river Parahyba at a distance of 15 miles from Rio de Janeiro and 10 miles from S. Fidelis, there was founded on the lands of the property known as Caconda the Sugar Cane Megasse Paper mill belonging to Cia. *Industrial de Cellulose which has its chief office in Rio de Janeiro, 38, rue S.* Pedro.

Dr. Jeronymo Tereira de Alencar Lima started the industry and is to-day the largest shareholder. The mill started in 1909, Megasse was bought at 11/- per ton and 1,500 tons were made into paper. The company have a special process of extracting the alcohol first, which yielded 480 litres to the ton which was sold at £6 10/- leaving 552 tons megasse for paper making of the 1,500 tons used out of which 265 tons of wrapping paper were made and sold in Rio de Janeiro at £13 10/- per ton.

The result decided Dr. Alencar Lima to increase the capacity of the factory which has been anything from 1 ton to 6 tons of paper in 24 hours in 1910 by also using rags and cellulose imported from Europe.

It was the constant endeavour of the Board to obtain Sugar Cane Megasse, but as the same is used as fuel in the sugar mills and as the sugar cane planters found some trouble to remove 300 tons of megasse, the average daily capacity of the sugar mills the paper company has since started sugar cane plantations on their own lands the price of megasse being 6/- per ton including cutting and weighing at the mill.

Dr. Alencar Lima in my opinion evidently made the mistake in starting the erection of the paper mill apart from the sugar industry an error of judgment against which I want to warn you as the starting of a sugar cane plantation should be considered with the object of making both sugar and paper. You would no doubt make very large profits provided the works were on the banks of a river warranting a suitable water supply.

I may say that I can supply sugar cane machinery for the manufacture of sugar and with my modern sugar cane megasse pulp making plant, if you would work this scheme jointly with me I can put you in the way of gaining a very large revenue from such a scheme.

There is also at the present time at the Simmons Sugar Company at Preston, Havana, in the Island of Cuba, a process exploited to make paper out of sugar cane megasse, and the paper made is very good and strong. However, the process in use there, is not so good as the one I have recommended to you, as I think that only 20% fibre are extracted at Preston. The gentleman to whom I

have referred has been with practical experiments in the United States of America where considerable quantities of megasse have been made into paper, and a few years ago he shipped 100 tons of Cuban Megasse to a mill in England with which he was connected, and made this material into various classes of paper for which there appeared likely possibilities. The paper samples he obtained from Megasse were more or less dirty, one reason being, that the cane deteriorated to some extent on the voyage, owing to the influence of salt water, and developed fungus, which is only to be expected in vegetable matter of this kind, the other reason being, that these experiments were kept very secret as the cane is used in Cuba as ordinary fuel in the sugar mill and no care was taken in regard to the material to keep the coal dust out of shipment, which was taken from the boiler house of a sugar mill, but otherwise he made a first class quality of paper in these experiments. I have given you the most reliable plant from which you can expect a very good quality of packing paper. I may also say, that the pulp gained from the megasse, can be readily made into a very high class book paper. This is the field which will, very likely interest you, the heavy demand for paper for illustrated magazines. This field is growing tremendously as you know and can appreciate it. It has been found impossible to carry a large charge of China clay in paper made of megasse, and when so charged the paper is subject to a high finish by ordinary glazing, by means of calendering. The gentleman in question has successfully made papers which took half toning beautifully, and would be in fact the equal of a coated sheet. This you will realise is a great field, and I have tried to lay down very safe lines for you to gradually work in that direction. You should largely turn your attention to the making of book papers. The cost of manufacture] is, as you will see, in favour of Megasse, which is easier to treat and yields more material. The pulp will yield easily to bleaching and having the qualities of a first class soda pulp, whilst the cost of manufacture are in favour of the treatment of Megasse which is easier to treat and yields more material. These sulphate pulps are known in the United States because of the kraft paper made from them. They are entirely different in treatment and character to those already referred to. Esparto grass is getting scarce, and the price to-day amounts to £4 per ton, which with a yield of only 40% in pulp, makes raw material for Esparto papers something like £10 per ton for the producers to be sold at £15 per ton. There is no doubt, that megasse can be substituted for Esparto, and I think there will be no difficulty in getting some English mills to proceed with Megasse pulp in place of Esparto pulp, if it is possible to secure it properly treated and clean. In fact I know of several English Papermakers, who have expressed great interest in Megasses and in any proposition to obtain pulp out of it, and this would especially refer to the West Indian Sugar Cane Megasse.

There is of course the climate to be taken into consideration, and where sugar is produced, the water supply is as a rule uncertain, but I feel that a pulp mill in connection with a sugar mill would be a very good combination in Jamaica. The pulp mill could get a yield out of sugar cane megasse of approximately 70 to 72 % in pulp for paper making. The pulp would be of more value in the English Markets than Esparto Grass Pulp, on account of its greater yield of paper per ton of material handled.

You will note that in my statistics, I estimated the buildings at £5,000 and the additional machinery and plant above the pulp plant referred to at £12,000 making altogether £17,000 over and above my quotation. The total expense, would therefore be about £35,000 and you will find that the return on such an outlay of capital would be very good indeed. I have also calculated as freight from Jamaica for pulp 15s. per ton. There is of course, the question whether I have not under estimated this figure. I feel however, that it is possible to obtain this freight if the pulp mill were situated near the coast and not too far from a shipping port. The pulp should be handled of course in large shipments of not less than 1000 to 1,500 tons at a time. You will see that I have estimated the price of pulp per ton, forwarded to English and Scottish ports at £10 c.i.f. This is a very moderate estimate, however, as I feel sure that it will fetch £15 per ton, the price which is quoted for Esparto pulp.

On the ground of personal observation, I know that the Megasse pulp is superior to Esparto pulp, and I feel sure that for Megasse pulp a higher figure could be obtained than £10 per ton.

I hope you will do your utmost to secure an order for the first plant, and remain,

Yours faithfully,
F. A. HAZARD.

(We have held over the Statistics relating to a modern Sulphate Cellulose Mill as there appears to be some error in the calculations as supplied to us.)—ED.

The Secretary said that there was no likelihood of megasse being used for the purpose of making paper here, as where wood was scarce it was used in the furnaces and where wood was plentiful, megasse was considered of more value as manure. It was light and bulky material and not economical to transport. Factories here were not usually big enough to support a pulp making plant. It might be useful however to publish the letter with the details about the pulp making plant in the JOURNAL. This was agreed to.

Citrus Fruit—Standard Measure.

The Secretary said that it had been reported to him by Branch Societies that the Law was frequently broken with regard to the buying of oranges by standard measure, and giving instances, and he had reported this to the Inspector General of Police, who now informed him that prosecutions had been made and convictions got.

Mahoe and Mahogany Bark.

The Secretary reported the opinions of the Branch Societies as regards including Mahoe and Mahogany Bark in Schedule (a) of the Prædial Larceny Law (Law 4 of 1909). Some of the Branches asked also that Cedar bark, which was used as a stain, should be included.

It was resolved to recommend to the Government that Mahoe Mahogany and Cedar Bark should be added to the Law referred to.

Shows.

The following matters *re* Shows were considered.

(a) *Application Grant—Clifton-Newstead Branch.*

An application for a grant from the Clifton-Newstead Branch which is on the borders of St. Mary and St. Ann for a Show they proposed to hold, March was submitted.

Mr. Muirhead said that sometime ago the Shows Committee had been considering the matter of too many Shows being held, and whether they could not be regulated. He asked the Secretary what had been done in the matter.

The Secretary said the matter had been considered and settled, It was decided that the Parent Society could not make a ruling as to where Shows should or should not be held, that must be left to the desire of the Local Committees. All that could be done was to try and regulate the holding of Shows from this office so that they would not clash in any way, and this was being done at present. Rules and Regulations for Shows had been printed and passed by the Board.

Mr. Muirhead said he could not recollect this and asked if the Secretary had the papers on the subject that he could refer to.

The Secretary said he could do so.

Mr. Stedman said that no matters with reference to Shows seemed to be referred to the Shows Committee, at any rate not since he had been a member.

The Secretary said that a good many matters had been referred to the Shows Committee, and the year before, Rules and Regulations regarding Shows had been prepared. Since the storm of November last however no Shows had been held, and there had not been much business.

Mr. Stedman moved that in future the matter of Grants to Shows be first referred to the Shows Committee for enquiry, and then go before the Board. This was agreed to.

The application for a Grant from the Clifton-Newstead Branch was therefore referred to the Shows Committee.

(*b*) *Date of Bybrook Show.*

The Secretary said that the St. Thomas Ye Vale Show at Bybrook had been fixed for the 16th of April next, the same day as the meeting of the Board of Management, and that the Committee of that Show had begged that the Board might alter the date of their meeting to the 23rd. It appeared that the Show could not be conveniently fixed before or after that week, because of Lent and the Easter holidays coming in.

As the meeting of the Board fell early that month it would be more convenient for him if the meeting of the Board was held on the 23rd. It had already been decided as a principle that Agricultural Shows must keep clear of the third Thursday of the month, but in this matter under consideration as related there were special circumstances.

It was resolved to give notice tnat the meeting of the Board of Management next April will be held on the 23rd instead of the 16th.

(*c*) *Savanna-la-Mar and Christiana Shows* :—

The Secretary reported that the Show at Savanna-la-Mar fixed for the 1st of January, 1914 and the Show at Christiana proposed to be held on a day in March next had both been dropped as the districts would not be in a good enough position to support Shows.

Authorized Persons :—

Applications for the appointment of "Authorized Persons" were submitted as follows :—

1. From Mr. G. D. Rowe, of Colbeck Estate, Old Harbour, for the appointment of Joseph Douglas, Planters District, Old Harbour P.O.

2. From Mr. Walter Fletcher, Latium Estate, Latium P.O. (St. James), for the appointment of Frederick Samuel Longman, Latium Estate, Latium P.O.

The Secretary was instructed to send forward these names to the Inspector General.

Laws relating to Agriculture :—

The Secretary said that in 1906, the year before the earthquake, it had been suggested that it would be a useful thing to have all the Laws relating to Agriculture written in simple language, and compiled and published in booklet form. The late Mr. R. A. Walcott had promised to compile such a book, but since his death the year after the earthquake the matter had lain in abeyance.

Mr. Williams said if he remembered aright he had first proposed this; he had conferred with Mr. Walcott on the subject and he thought that the latter had actually begun the work before the earthquake.

It was agreed that such a book would be useful and the Secretary was asked to make preliminary arrangements and to report at the next meeting.

Toronto Exhibition.

Mr. Muirhead asked whether a report in connection with the Toronto Exhibition had yet been received. The Exhibition closed on the 8th of last month. and it appeared a long time if they had to wait for another month.

The Secretary said that the report on the Exhibition did not go before the Society : it was the business of the Permanent Exhibitions Committee. Mr. Cradwick had handed him his draft report the previous evening along with his accounts. There was quite a large amount of work and business involved in winding up the affairs of the Exhibition ; it could not all be done at once. The returned exhibits were not here yet. He was however, calling a a meeting of the Permanent Exhibitions Committee for next week and the report would be submitted to them and then be sent on to the Government. It would only be a matter of courtesy if the Board were sent a copy by the Government, but it was usual to publish the report.

Instructors.

The usual Reports and Itineraries of the Instructors were submitted and directed to be circulated to the Instructors Committee as usual.

Statement of Account was submitted.

New Members.

The following new members were elected :—Mr. Chas. J. Eder, Cauca Valley Agricultural Co., Palmira, Rep. of Colombia., Mr. E. L. Mossman, Bog Walk.

The meeting adjourned until Thursday the 20th November, 1913.

CATTLE—JAMAICA BREEDS.

We have always been interested in the subject of finding a type of cattle, which would form a good utility type for this country. Not any of the British breeds are entirely suitable. The Indian breeds are not suitable, and in the past, only chance crosses have been made between these types.

It requires persistent work over a good many years to produce a new fixed type of cattle. It also requires breeding several combinations, keeping strict notes of the distinct crosses, and the crosses upon crosses.

There is room in Jamaica for several types. The most useful all-round animal would be one with short hair, a tough hide, medium size, a fairly good milker, a good traveller and with a disposition to fatten readily. Such a type would not be so good as the special purpose animal, for its special purpose, but would suit general circumstances. It would not be so good for beef as a Hereford, nor so good for milk as a pure bred Jersey, nor so good for draft as a high grade Indian. But it is quite possible to secure an animal, medium in all these directions. We have seen such types bred accidentally. We have one in mind, with a good deal of the old Brahmin breed, usually called "Lion Tail" breed, and with some Shorthorn, in it. This particular cow had thin hair, a tough hide and was hardly ever attacked by ticks; it had a large udder, large teats, gave three gallons of milk, stood without a rope, and bred every twelve mouths regularly. It was easily fed, milked well and looked well on ordinary common feeding.

We are sure a good many of such cows could be picked up in the country as the foundation for a herd. We have passed several through our hands for private breeders.

Work of this kind has been carried on for some years at the Trinidad Government Stock Farm. The breeds principally used there were Guernsey, Red Polls and Indians. This work is also now carried on at the Hope Stock Farm, and in the Bulletin of the Department of Agriculture, Vol. 2, 1913, a very interesting account is given of the progress made. The breeds used are:—Indian, Jersey, Red Polls and to a small extent Shorthorn, and grades of different dairy breeds.

We have been of the opinion that the best dairy cattle for blending with Indian or mixed breeds here is the Guernsey. They are not only a bit larger than the Jersey, without being too large, they are certainly more robust, and thus better to adapt to ordinary conditions. They are not hairy either. There is no use in introducing breeds or combinations of breeds that will always require very tender handling, because that they are not going to get.

———:o:———

COCONUTS—COPRA.

The care bestowed on the preparation of copra always has considerable influence on the value and quality of the products—oil and cake—derived from it. The extra price value may reach and even exceed £2 per ton, and it will doubtless continue increasing more

and more, for the manufacture of very white and pure oils, of soap of superior quality, and above all of coconut butter (vegetaline, palmerine, etc.), tends to expand every day. It is therefore essential that planters should aim at producing only thoroughly dry copra of good quality and as little discoloured as possible.

1. The purest oils and those of the best quality are extracted from the least discoloured copra, which is only obtainable from nuts harvested when thoroughly ripe.

2. Drying by smoke and in ovens when badly carried out is objectionable, as it gives rise to more or less darkly-coloured copra, which emits a decided smell of smoke, leaving a residual cake of inferior feeding quality.

3. Sun-drying gives excellent results when properly carried out.

4. Copra of excellent quality can only be prepared from thoroughly ripe nuts.

5. Preparation by exposure to the sun is carried out with the greatest care by the natives of Cochin, who are more energetic and perhaps also better agriculturists than the Singhalese. They, too, take care to prepare their copra and oil from only those nuts which are thoroughly ripe.

The drier the country in which the estate is situated, the easier the preparation of sun-dried copra. In very wet countries and when it is impossible to go to the expense of stoves, it is advisable to make copra in ovens, provided that fuel giving off the minimum amount of smoke be used. Driers as for Cocoa can be used.

According to an experienced Ceylon planter the following procedure is recommended. Thoroughly ripe nuts are first selected and gathered only when of a dark brown colour. They are then placed in heaps until it is time to start the drying, which must be begun within three or four weeks of picking. At this time the kernels may be easily removed from the shell after short exposure to the sun, and often when the nut is first opened. The nuts must then be broken and spread out side by side right in the sun on a day as dry and hot as possible, taking care to prevent any particle of dirt or sand coming in contact with the inside of the kernel. It is, therefore, a good plan to spread out the copra on mats until a dry film, to which foreign matter cannot adhere, is formed by evaporation on the inside of the kernel. By rubbing the copra gently with the fingers sand is easily removed. At the end of a few hours this operation is usually complete. Then the pieces of hard shell are removed and the drying finished by spreading the copra out in a suitable place either on mats or on the ground. The nuts must only be opened during the morning to allow the surface crust to form before night. A little before sunset the kernels are placed in long heaps thirty to forty centimetres high. On the next and following days they are again spread out until drying is complete. Rain even of soft duration will do much damage to the colour of copra.

In Ceylon it is estimated that 4,800 to 5,500 nuts are required to produce one ton of copra. In Trinidad 6,000 are taken as the average In this connection it is interesting to note the experiments carried out by M. Rideau, a planter in Annam, which was published in 1901

in the "Reveus des Cultures Coloniales." These experiments were carried out on 1,000 coconuts, and were repeated each month for a whole year.

The quantity of Copra produced by 1,000 nuts and the number of nuts required to yield one ton of copra wore as follows :—

	Month.	Number of nuts required to make one ton of copra.
Winter Season	November	5,704
	December	5,580
	January	6,234
	February	5,763
	March	5,743
	April	5,977
Summer Season	May	5,089
	June	5,780
	July	5,680
	August	5,524
	September	5,494
	October	5,780

Taking to the average for the 12 months, 1,000 nuts yieided 730 lbs. of fresh kernels, and 385 lbs. of copra. To produce one ton of copra an average of 5,677 nuts were required, that is 2·53 nuts produced 1lb.

(The above are extracts from an article appearing in the "Tropical Agriculturist" of Ceylon and were originally taken from a standard work on coconuts by Mr. Prudhomme, Director of Agriculture for Madagascar.)—Ed.

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GINGER.

Every industry of ours that becomes depressed through lack of demand of the product caused by change of public taste, or the use of some inferior or cheaper product which serves the purpose, though not equally well, should be a matter of grave concern to us as it affects the Island's trade in general and always some district or districts in particular are hard hit.

The stagnation in the ginger trade has more than one cause but one cause is that makers in Great Britain and elsewhere, of ærated waters are using substitutes, the most common of which is pepper.

Now Ginger Ale should of course be Ginger Ale, and if there was a stringent Pure Food Law in force, the label on each package, tin, bottle or jar of any product would require to be labelled truthfully. One of the projects put forward some years ago was for Jamaica to be represented by a commercial agent in London whose business it would be to push and advertise Jamaica products, particularly thé side lines, and also keep a watchful eye on all matters concerning our products. A little campaign on the use of ginger and the misuse of substitutes might have done some good at the present

time. Practically all ginger is sold as Jamaica ginger. A few years ago all the big bananas were sold as Jamaica bananas and during the past four years people in the United Kingdom thought they were eating Jamaica bananas when the fact was that not a single banana from Jamaica was imported into the United Kingdom during 1912. This year the Elders & Fyffes steamers have begun to take our bananas again.

Every British Colony having interests to protect and products to push, ought to have their Commercial Agents in the countries where their chief interests, or prospective interests lie. Where the Colonies are small, they might group together to support a Commercial Agent.

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ANTS.

Almost daily do we receive requests for "something to kill ants." Now it is not easy to reply to these queries, because there are different kinds of ants causing loss to our interests in different ways. The most common enemy is the ordinary stinging ant and it is about the easiest to get rid of. First their nests must be found, and they must have nests to be able to exist because like bees it is only the queen ant that reproduces her kind. Sometimes they make hills of soft earth and then they are easily dealt with. Sometimes, however, where the ground is hard, and where they are frequenting yards that are bricked, they only make little round holes. They are easy to be got at then.

We have spent an hour a good many times going around with a bottle of Bi-Sulphide of Carbon and a piece of iron—generally the prong of an old fork. This is driven in the hills or holes and turned about to make a bigger hole; about half a tablespoonful of Bi-Sulphide poured out of the bottle, (the quantity being guessed, as this stuff smells so badly that haste is necessary)—then the bottle is quickly corked, and at once with the fork some earth is drawn over the hole made. That is all.

In all operations with ants it is necessary to get at the nests to kill the queen ant; it is not of very much use to kill a few hundreds or thousands of ants, though they are wise enough to know when a place is made disagreeable to them and leave.

The constant use of Paranaph will drive ants away from houses.

Traps can also be set for all ants.

Red ants nests should have a little kerosine poured on them and be set fire to. Red ants and stinging ants can be trapped by putting down sweet liquor with a little arsenic, or any poison dissolved in it. Great care should be taken to use a special vessel and let everybody in the household know that this poisonous stuff is put down for ants; and in disposing of the poisoned liquor and dead ants the next day. This bait will also trap the very small ant which goes after the sugar commonly called "sugar ants". These three are those which frequent houses and yards.

Then there is the black biting ant called "Stinking Ant" which is a pest upon pimento and other trees. These pests make their nests upon the trees often high up and keep running up and down

the trees. Boys do not care to go up the trees as they are bitten. The nests can be cut off by means of an old but sharp cutlass blade on a long pole and the pieces at once picked up and burned. If it is necessary to climb a tree to get at the nests to cut them off, the boy going up should rub the exposed parts of his person with castor oil and tie a string tight round the bottom of his sleeves and trousers.

Another ant. but a beneficial one is called the "Tom Raffle". Mention was made of this ant in the JOURNAL for August 1912. It is credited with killing the Black Ants mentioned above, but we have no personal knowledge of this, as this ant does not seem to have spread over the Island. Still the evidence of two Agricultural Instructors in Westmoreland, who have at different times, watched experiments with the "Tom Raffle" ants, and have seen them exterminate the Black ants, is conclusive enough.

Ants, generally stinging ants, frequent trees and plants and while they do not do damage directly, they go after the aphides or plant lice which they place on the plants and protect them; the aphides are their milk cows. These aphides suck the juices of the bark and leaves. Spraying with Paranaph kills the plant lice and drives away the ants.

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RESTING LAND.

We do not believe in throwing up land to fallow or rest unless it is to be made a pasture and thus be cleaned of weeds regularly. But simply throwing up lands for a season of a year and letting bush and weeds grow in abundance means the establishment of weeds through seeding that was hard to get out of when the land is again put under cultivation.

Land to be rested should be planted to a leguminous crop and one that grows hardily and luxuriantly is best, and we have this in the Bengal Bean.

All over the country we see banana fields thrown out ef cultivation to be taken up in a year or so for re-planting. Grass which is the worst of all weeds in a banana field, weeds and bush of some 40 different kinds, a good many fortunately leguminous, immediately take possession and being unchecked grow most luxuriantly. Sometimes when suckers are not required from that field for re-planting, cattle are turned in, but they do not eat many of the weeds although they may trample them.

Now where a banana field is being thrown up, if only one furrow is run up the centre with a plough, or on unploughable land one row of holes was forked, or two rows three feet apart, and Bengal Beans planted and given a start, they would take possession, cover the ground 3 feet deep, climb up the banana stalks and cover them. In five or six months the cattle could be turned in and would find the richest feeding and fatten. There would be no weeds anywhere in the fields; they could not show face against the Bengal Beans.

The land would be enriched to the extent of some 10 to 15 tons of humus-making material; the soil would be permeated by the roots

of strong growing plants rich in nitrogen, the value of the nitrogen being not less than £1 10s. per acre. After ploughing there would be few weeds to tackle for a period.

It has been the regular practice to throw up tobacco fields in the same way to weeds, although latterly crops of Black Eye peas and Cow Peas have been planted. but invariably these are cropped, that is the crops of peas reaped, so that the land does not benefit much. If an old tobacco field is planted to Bengal Beans, the soil would be in fine condition for the next crop, greatly enriched, free of weeds and altogether cost half to cultivate, with probably a twenty per cent. better crop. We wrote to the same effect in the JOURNAL for 1912.

And our usual leguminous crops are all drought resisters, (1) Cow Peas, (2) Black Eye peas, (3) Caroline peas (similar in growth), (4) Jerusalem peas, (5) Overlook Beans, (6) Bengal or Velvet Beans (which are very much alike).

There is severe competition in most of our lines of products, but our biggest competitor, one to be feared, the one that costs us most, is the firm of Weed & Co. The persistent and altogether objectionable weeds should not be allowed to propagate, and they can be crushed out by proper methods. Instead, all the land that is thrown up to fallow or rest is usually a breeding place for just such weeds.

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OBSERVATIONS IN SOUTHERN CALIFORNIA OF INTEREST TO JAMAICA.

Southern California is a most prosperous country, not on account of natural resources so much, as on account of the enterprising spirit of its people and its co-operative methods.

The coast region from 60 to 80 miles inland enjoys a fine climate, varying from occasional frost in winter to occasional 100 degrees F. temperatures in late summer, and this only when the usual sea breeze fails during the day and a wind from the interior deserts prevails.

The summer temperature in the interior is terrific. for 110 deg. and 120 deg. standard shade temperature are often recorded in the summer, yet the people endure it and work through it to follow their occupations.

From the farmer's point of view no region presents better possibilities than the Imperial Valley below the sea level, and this is probably the hottest of the fertile interior regions.

Around Los Angeles the yearly rainfall averages $15\frac{9}{10}$ inches, max. known 34 inches, minimum known, ·5 inches. Max. Precipitation in 24 hours 4 inches, and this disorganized traffic on the streets considerably.

Many areas have much less rain and a few hill regions much more.

This light rainfall is practically confined to the months of December, January, February, March, so that the only season when the country is fairly clothed in green is during April and May.

Every preparation is therefore made to secure the benefit of the one general crop whether of hay, beans or grapes that may be had from the winter rainfall. This is also of great benefit to the orchards.

All else must be grown by the aid of irrigation, and nowhere have I seen irrigation successfully managed on anything but level land or very gentle slopes. Throughout this country there are large undertakings both by the government and by companies for irrigation, some of these have been failures, some swindles, but many great successes.

The noteworthy feature however is the great amount of irrigation that is accomplished from wells of varying depths, the water being raised by wind mills and stored, or by gasoline or oil engines. These may be heard any and everywhere. Of course, if crops must be grown by irrigation, no heavy downpours of rain are a great advantage, since artificial leveling and trenches for water are not seriously cut up by the rains.

Take for instance the alfalfa crop which is the one that interests me most of all. To obtain first class results the land is carefully leveled off in "checks" or terraces, so that each may be inundated with water evenly to the depth of a few inches with low rounded ridges between the "checks" that need not interfere with the reaping mower and the horse rake for gathering the alfalfa and turning it over for drying by the sun. But another method is in use to avoid this original expense of preparation and this is the thing that Jamaica will yet consider. That is, the use of light piping made of galvanized iron, of such weight as is used for roofing made up in lengths of 10 or 12 feet and from 4 to 8 inches, in diameter either crimped or riveted with one end tapering so as to telescope into the cylindrical end of the next piece. Such pipe is very light and very cheap not being suitable for pressure, but can be laid across a field of alfalfa, beets, potatoes, peas, tomatoes or almost anything without doing any damage, and conveys the water down grade without washing the field. The joints may be opened more or less to distribute the water along its course. This makes a very simple and effective method of irrigating and a most economical one in the use of a small supply of water. When one field or area is irrigated the piping can readily be gathered up and transferred in a wagon to the next field. Of course it is necessary to have some simple form of hydrant or controllable outlet for water at the highest point of each field and this connected with the pump or gravity supply as the case may be. For these fixed pipe lines, subject to very light pressure as they are, a great deal of concrete and earthenware pipe is used, the joints being made with Portland cement and sand, with stand pipes from two to six feet in height preventing excessive pressure. These also economise water greatly, since very little is lost by absorption as in open channels, and nothing by surface evaporation. Alfalfa is cut just before it flowers by a mowing machine, raked up, turned over and quailed rather than dried, and stacked or baled. Then the field is irrigated thoroughly for the next crop. From four to seven crops being cut per year. Where too far for successful marketing, some is stored and the rest fed down by cattle and hogs.

I am convinced that the man near Kingston or Spanish Town who will clear some good porous land, level enough to be irrigated, and will plant enough alfalfa, or beans or peas and may be beets, or potatoes so as to tide over the shortage in guinea grass during dry weather, and have enough good feed on hand by means of irrigation, so that he has more milk to sell when his neighbours have less, will soon learn to have that kind of food for milch cows on hand all the time and may be he will buy out his neighbours so as to get room to grow more.

In such a dry country as Southern California a great deal of feed has to be stored for stock and the certainty of dry weather and a dry atmosphere is of great advantage. The labourers wage is $2 per day, and skilled labour $3 to $5 so that machines are used most extensively, and the more expensive one stravel from place to place.

Plows range from the single two horse plow to the gang plow drawn by sixteen horses, or steam or gasoline traction engines.

The same applies to mowing machines and other reapers.

In many places a great deal of time and money is spent to so rough level and prepare the land as to make machine work on crops expeditious.

In August 1912, I saw a machine drawn by eighteen horses mowing off the tops of a field of standing grain, (well supplied with oak trees,) and the grain was threshed and bagged as the machine went along, the bags being dropped. A small wagon gathered and stacked the bags in the field, to be hauled in a few days to the railway station. Jamaica can find use for small machines, if not for large.

This State simply abounds with pumping plants of all kinds, and at present many of the cities get their water supplies pumped from wells.

Besides the ordinary type of wind mill that revolves on a metal tower so as to face any wind that blows, there is a very sensible and simple type of wind mill in use by the Japanese near San Francisco, adapted to use the prevailing wind (a sea breeze) and no other wind. It lies between the Dutch wind mill and the modern small wind mills just mentioned.

This is a small construction with four wide vanes on cross arms keyed to a shaft with an adjustable crank pin at the other end, from which the rod to operate the pump depends. This mill is intended for small lifts and might be used largely through the St. Catherine plain in Jamaica to return water collected by drains to a point high enough to be again used for irrigation. The tower is simple and strong, of four main upright timbers about thirty feet long with two struts to brace same against prevailing winds. The wind mill is fixed in direction, is strong, if clumsy, and only utilizes the strong sea breeze.

Well boring, either for oil or water is a great industry in California, and the tools and devices to overcome its difficulties would make a most interesting study. Even the smallest of farms have wells and wind mills or gasoline pumping plants.

I love Jamaica, and hope to see its people some day make such provision as is practicable to overcome drought conditions in water and feed.

Believe me common sense and enterprize could do wonders in this respect. Improvements can be effected (1) by wells and pumps, and small reservoirs, (2) by judicious catchment areas and genuine tank storage of water shut off from evaporation and dealt out for stock to drink and not left for them to wallow in.

JNO. LOCKETT.

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FERTILITY OF SOILS.

We have for long been forming the opinion which we now feel definite about, that it is not so much lack of fertility,—we might even not qualify our opinion by saying not so much,—but say that it is *not* lack of fertility that is wrong with any soil here that will not grow good crops. A really poor soil is rare in Jamaica. The fertility is not gone, but the humus often is. The negative results in the majority of the experiments in bananas, cane and cocoa—which are the crops which have been most systematically experimented upon—in the use of fertilizers have helped us in coming to this conclusion.

In Dominica the application of a mulch on cocoa proved more profitable than the use of fertilizers, and as that is a country of heavy rainfall, it was not because the mulch conserved moisture but because of the addition of so much humus. In Trinidad the experiments with fertilizers on cocoa have been mostly negative. Here the Department of Agriçulture have had negative results with fertilizers on sugar canes and bananas, generally speaking. Yet the application of fertilizers on a leguminous crop shows visibly good results in the increased growth of the peas or beans grown as green dressings, compared with non-fertilized crops—and through the fertilized green dressings the bananas and cane benefit from the addition of a greater amount of humus containing stores of nitrogen, potash, phosphoric acid, and lime.

Lands that would not grow bananas at all, now, simply through a thorough system of trenching are growing magnificent fruit, yielding 80 per cent. bunches. Rich bottom lands that were beginning to give poorer and poorer results and yet are trenched, at once responded to a good application of lime.

All that is wanted, in addition of course to tillage. to make lands renew their youth, are (1) drainage (2) humus (3) lime.

The humus can be got by growing heavy crops of Cowpeas, or Jerusalem Peas or Overlook Beans or Bengal Beans, and the heavy crops of these can be secured by tillage aided by fertilizers, and as these legumes do not require nitrogen, they are economical. Nitrogen is the most expensive element in fertilizers.

Tillage, drainage, humus, lime, applied with knowledge and experience of different crop requirements will enable fine crops of of any product to be raised.

OTHER LANDS.

Credit and Co-Operation.

The German System of Helping Farmers to Conduct Their Business.

The report of J. R. Cahill upon his inquiry, conducted at the instance of the British Board of Agriculture, into the agricultural credit and agricultural co-operation systems of Germany has been issued in London as a government bluebook. The report itself fills 302 pages, a prefatory note 3 pages, and appendixes 210 pages. Mr. Cahill, in his prefatory note, says that in no modern state does organized effort for safeguarding and promoting the economic interests of agriculture appear to have been so persistent and successful as in Germany, more especially in the direction of providing the farmer with facilities for obtaining credit, for acquiring the instruments of production, and for disposing of his produce on the most favourable terms. In Germany landowners can obtain mortgage loans through a variety of special institutions for mortgage credit.

At present the total outstanding loans obtained through such agencies may be estimated at approximately £400,000,000. The goal of a co-operative bank loan in practically every parish of the whole monarchy has now been nearly reached. There are in Germany 17,000 agricultural co-operative banks, with a total membership of over 1,500,000. In 1910 the total turnover of 14,729 such banks amounted to £254,668,800. In the sixteen years, 1895 to 1910, only nineteen rural credit societies were involved in bankruptcy.

The great system of German rural co-operative credit, Mr. Cahill says, has not been created in a day, and it is hardly to be expected that the work of establishing a similar system would progress more rapidly in England. On the other hand, there seems to be no reason why it should progress more slowly in this country than in Germany, especially if a similar intensive and penetrating propaganda could be set in operation. Only through such local organizations would it seem possible to establish the close contact that must exist between lender and borrower if small farmers are to be in a position to obtain credit on suitable terms.

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COCONUT DISEASES.

The following is taken from the Report made to the Acting Director of Agriculture by the Microbiologist on his visit to St. Thomas ye East and Eastern Portland to investigate into the diseases of Coconuts, which Mr. L. A. Wates, the Agricultural Instructor, long ago reported to exist, and has been constantly writing about in his Reports. The names of Estates mentioned in this report are not given here.

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Four distinct diseases of the coconut palm were observed and samples brought away for investigation with regard to cause.

(1) DIEBACK DISEASE.

Locality.—As regards the relative number of trees affected this disease was most marked in the Morant Bay district and along the coast strip towards Port Morant. Between the latter place and Bath it was little in evidence. It re-appeared beyond Bath from Rhine to the estates on the P. G. River alluvium where relatively fewer trees were attacked; many of the trees affected, however, were severely injured. The disease was continued along the coast from Hector's River towards Port Antonio but was less conspicuous in this district. The disease was known already between Port Antonio and Annotto Bay and was specially prevalent and injurious between the latter place and Buff Bay. Many trees are affected around Kingston and along the Railway and canal to Spanish Town.

The disease may therefore be regarded as present in epidemic form along the coast lands continuously from Spanish Town eastwards round to Annotto Bay and probably beyond. It is found on every type of soil and is most abundant in the districts which suffered severely from the drought of 1911-12.

Age of trees attacked.—The disease has not been observed on the leaves of young trees before coming into bearing. It seems to be rare on trees during the first few years of fruiting and is most usual on trees from 15 years onwards. Coconuts planted since the hurricane of 1903 have, accordingly not suffered to any extent from dieback.

Injury inflicted.—The fungus (Diplodia) usually enters the leaflets near or at the tip gradually advancing towards the base causing a uniform browning sharply separated from the normal green tissue. The older dead region behind the tip is entered by other fungi which cause it to burn grey and brittle. As the leaflets on a limb are gradually killed back, the limb itself wilts at the base and bends down soon drying up and hanging against the trunk till it falls. The older leaves show the worst infection which is successfully conveyed by means of spores to the younger expanded leaves. The limbs are shed more rapidly than they can be replaced from the bud so that the cabbage tends to get smaller and more open. Nuts on spikes in the angles of the lower leaves either fall, do not reach maturity, or mature prematurely.

The abnormal loss of leaf starves the tree reducing growth in all parts and making the outlook for the crop in the current and following years very poor. I have not seen the entire cabbage fall away from this disease but as its extension and severity has been confined to the last two or three years it has probably not had full opportunity yet to show at its worst.

Treatment.—It was declared an infectious disease under the Plant Diseases Law in June this year. The treatment required consisted in cutting down and burning affected limbs and spraying the rest of the cabbage with bordeaux mixture as a protection against spore infection. In addition to the relatively large dark two celled spores produced in large numbers in black hollow pustules on the leaves, the fungus also forms dark, thick walled resting spores in the leaves which have died and fallen, so that care must be taken to collect and burn all dead leaves hanging down the trunk and all that have fallen in addition to those which are cut down. As the

disease starves the tree and reduces growth of young leaves and roots every chance should be given it to make vigorous growth and replace the leaves lost as rapidly as possible. The soil should be cleaned of grass and weed in a circle six feet away from the tree in a zone at least six feet wide and manure applied to this cleared portion.

If pen manure is available it should be applied to the cleared part, or in its absence 1lb, of each of the sulphates of Ammonia and potash mixed with dry earth and raked under. Where the soil is stiff loam or clay a dressing of fresh slaked lime should be given first and the Ammonia and potash applied about two weeks later. The clearing should be made to a depth of ¾ inches to remove roots of grass and weeds as if left. these roots would take up the manure and the roots of the tree would not benefit.

(2) BUDROT DISEASE.—This disease was found and a description of the symptoms noticed there has been given already.

Cultures made from the rotten material have yielded a bacterium and a yeast; the latter was evidently secondary. The bacterium was identical with one found in a similar budrot from another source, and is, no doubt, the cause of the rot: It has the property of producing acid and gas from solutions containing glucose, cane sugar, milk sugar and mannite, but unlike the organism studied by Johnston, it is not motile and has a distinct capsule. Though closely allied to B. coli it is probably identical, with the form known as B. lactis aerogenes.

Where the disease starts in the heart of the cabbage it is likely to be too far advanced before being noticed, to save the tree which should be promptly felled and the entire rotted region burned or buried deeply with abundance of fresh slaked lime. An attempt should be made to protect neighbouring trees by spraying bordeaux mixture into the centre of the cabbage with a coarse nozzle,

(3) GUMMOSIS DISEASE.—The disease was observed. I also consider that trees felled were suffering from the same disease. The samples taken from the bases of the outer limbs of tree growing on the estuarine alluvium failed to show the presence of any parasite in the discoloured tissue which had the same appearance internally as I found in the limbs of trees exuding gum at other places.

A brown superficial rot advancing down the limb of a spike bearing young nuts yielded a culture of the dieback Diplodia but as this was confined to the spike I cannot regard it as the cause of the general appearance of the tree.

Cultures made from the reddish and sodden tissues at the base of the trunks of trees yielded growths of a film forming yeast and a bacterium identical with that found in the budrot. The presence of this bacterium probably accounted for the faint odour of budrot observed. The gum exuded proved free from fungi, yeasts or bacteria and the underlying tissue impregnated with gum proved sterile also. In October 1912 I examined similar cases of gummosis, still more pronounced, and found the gum and the underlying tissue sterile as well as the tissue from the reddened heart of the trunk. In a brown decayed region at the base of the trunk a fungus was found which proved to be a Nectrio but I regard it as having infected a tissue already disorganised.

The negative results obtained in these cases of gummosis indicate a disease of a non-parasitic nature involving roots and trunks and causing serious disturbances in the movements of food and water. This disease seems confined to clay lands or a soil where water gathered and stagnated due to lack of outlet.

This disease is evidently quite distinct from the "stem weeping disease" described by Petch from Ceylon and attributed to Thielaviopsis paradoxa the pine-apple fungus which I have not found in any of my samples.

It is, however, closely skin to, if not identical with the Trinidad Root-disease studied by Stockdale and Rorer. In this disease there is the yellowing of the lower leaves and a red ring or red centre at the base of the trunk ; exudation or gum is also a feature though not always present. In advance stages a budrot appears to be frequent but is obviously not the cause but an effect of the disease. Johnston goes too far, therefore, in asserting that where there is budrot it must always be the prime cause of disease.

Stockdale considered the disease due to infection of the roots by Lasiodiplodia and believed he had evidence of its spread through the soil from tree to tree. Rorer has found no parasite in the tissues and refers the disease to a physiological disorganising of root and trunk tissues due to unsuitable soil. From this point of view the fungus is simply a saprophyte and the apparent spread of the disease is illusory and due really to trees growing on the same unsuitable soil, showing systoms of disease in succession.

Butler has described a root disease in Travancore affecting trees on both light sandy and alluvial soils which did appear to spread through the soil and which he considered due to the Lasiodiplodia. The features of this disease were in several respects different from the Jamaica and Trinidad diseases whereas one would expect the symptons to be identical were the cause of disease the same.

In Ferguson's Ceylon Manual "All about the Coconut Palm" fourth edition appendix page 54 an extract is given, from the letter of a Jamaica planter about a disease which he imagined might be budrot as that disease was being much discussed at the time. His description applies very well to the gummosis. He writes :—

"I find (1) the first symptom visible is a straight brown discolouration on the back of the centre rib of the heart limb, (2) as each limb appears it is more and more discoloured, (3) a brown stain appears in spots upon the bole of the tree, (4) later a clear gum appears in great gouts and hardens on each discoloured spots on the hole, (5) all the outer limbs of the tree begin to droop down, (6) the young blossoms of the tree show signs of brown decay, (7) the whole spike of heart leaves lean over and finally droops right out of the tree, (8) the tree is dead."

The following was also observed :—

(1) the trees appear to die in patches of three or four. (2) the trees never die on a hillside. (3) The land where they die has in my case always been a yellowish clay.

We tried burning without a single case of recovery.

On cutting trees at the heart he found a circle of decay running longways through each limb and the youngest limb brown and decayed. Most of these symptoms apply very well to the cases I found; there is no suggestion of any evil smelling softrot of the bud a striking feature which would certainly have been mentioned had it been observed.

Treatment.—If, as I believe, this disease is non-parasitic and due entirely to unsuitable soil conditions, the only treatment must be in soil amelioration. If, efficient drainage, liming, manuring and stirring the stiff soils on which it is found, are ineffective the cultivation of coconuts is not possible on land of that class. The dynamite treatment before planting out is well deserving of a trial on such soils.

(4) DWINDLING OR PENCIL-POINT.—As the local names indicate the disease is characterised by the gradual reduction of the crown or cabbage to a few small leaves of a yellowish green hue.

In the more extreme cases these leaves may be reduced to two or three shortened heart limbs and finally these wither and fall leaving a bare pole. In the earlier stages the crown opens out and the ends of the leaves droop and turn pale and begin to dry up, hang down and fall successively.

The reduction of the crown appears to progress as a rule, very slowly, and may continue over several years. The reduced crown of leaves may show spot or not according to the prevalence of spot fungi in the locality.

Where Dieback disease is common on trees of the district the leaves of dwindling trees are often affected by it and the same applies to the spots caused by Pestalozzia and Spherella.

It is evident, however, that although such attacks of fungi on the leaves hasten the reduction and final loss of the crown, they are in no way the primary cause of the condition.

When a severely 'dwindled' tree is cut down and the heart and top of the stem exposed they are found to be quite sound and the same applies to all parts of the trunk. The condition is one of gradual starvation which has set in from a certain point in the life of the tree- Such trees have a trunk girth as large as nearby not affected trees up to a considerable height from which they narrow away to a marked degree tending towards a point, hence the alternative name 'pencil point'. The disease may attack trees of various ages from about fifteen years onward. It is most in evidence between Morant Bay and Port Morant on clay lands. It was again noticeable along the coast approaching Hector's River and beyond mainly on tall old trees. Along this strip it seemed present in almost all the older trees in varying degree,

The diseased roots from such trees developed in culture the common soil Lasiodiplodia the bromæ. A small proportion only of the roots were rotted by this fungus, not enough to account for the condition of the tree ; owing to the weather it was not possible to investigate the condition of the roots on a number of affected trees It will be necessary to dig out and thoroughly examine roots from a number of dwindling trees growing on various soils on different localities before I can definitely conclude as to the cause of the disease. There can be no doubt, however, that we have to deal with a form of root disease which normally requires a long time to kill the tree. The crop of nuts, of course, rapidly falls off until the tree is unable to set any and later fails to produce flowering spikes.

The disease has a distribution at least as extensive as 'die back' but the relative number of trees affected is decidedly less. A very

similar disease has been described by Butler from Travencore S. India which he ascribes to the attack of Lasiodiplodia on the roots, the finer rootlets being first affected. He found it on widely different soil types and discovered evidence of extension from tree to tree through the soil, (contact of roots). Petch found a similar and probably identical disease in Ceylon but I cannot say if it is the same as 'dwindling' as a copy of his report is missing from the Library at Hope. He attributes the disease to a basidiomysete. I have no proof yet that the Jamaica disease can extend from tree to tree through the soil; it is, however, an important point to establish as the treatment required will depend largely upon its ability to do so.

In the protracted struggle between the tree and the fungus, drought, by hindering growth and development of new roots, favours the latter while a rainy season by promoting root development, enables the trees to make more foliage and extends its life. I doubt very much whether a tree which has already shown marked symptoms of dwindling ever makes a lasting recovery. Where trees here and there in a plantation show this disease it would be a prudent measure to fell them and dig a trench about eighteen inches deep round the stumps at a distance of fifteen feet throwing the soil inwards. The soil enclosed by the trench should be forked up and receive a good dressing of fresh slaked lime. This measure prevents possible spread of the fungus to the roots of nearby trees while the forking and liming expose and destroy the fungus on and in the roots.

(Sgd.) S. J. ASHBY,
Microbologist.

On certain estates where a heavy tenacious clay exists below, the Microbiologist states that the only hope of getting a more healthy growth of coconut trees on such land is to be found in liming and trenching to prevent the soil from waterlogging over the impervious clay during wet weather, and breaking up the sub-soil by cultivation if possible. Such land would be well suited for trial of cultivation by dynamite before planting out coconuts.

The cost of driving holes with an iron bar to a depth of 2½ ft. and 9 ft. apart, charging with 25% dynamite and firing by cap and fuse, would not exceed three pounds ten shillings per acre and probably less than that in Jamaica. The sub-soil is completely shattered over the whole area at a depth of two and a half feet without throwing up the surface soil when low grade dynamite is used. The improved porosity of the soil is marked for several years and is sufficient to give the roots of the young trees a chance to penetrate the sub-soil and spread vigorously.

He goes on to say,—The deep porous alluvium at Plantain Garden River, is well suited to the growth of coconuts and bananas, but requires a very efficient system of drainage to prevent logging in wet weather, especially as there is difficulty in getting a good fall for the main drains.

Both young coconuts and bananas were showing evidence of excess of water in the soil following the wet summer in the district.

ED.

DUTIES ON JAMAICA PRODUCTS.

We are all interested in the revised Tariff of Duties imposed on Imports into the United States. We give herewith a list of the old and new rates on products that concern Jamaica.

SCHEDULE A.

Chemicals, Oils and Paints.

Articles.	Old Rate.	New Rate.
Drugs, bark, etc.	12.54%*	10%
Logwood, dye woods (extract)	7/8c. lb	3/8c lb
Orange Oil	25%	10%

SCHEDULE D.

Wood & Manufactures of Wood.

Articles.	Old Rate.	New Rate.
Mahogany and other cabinet woods, sawed	12.75%*	10%
Unmanufactured woods (N.S.P.F.)	20%	10%
House or cabinet furniture of wood	34.94%*	15%*
Manufactures of wood	34.99%	15%

SCHEDULE E.

Sugar, Molasses, and Manufactures of.

Articles.	Old Rate.	New Rate,
Sugar, dutiable until March 1, 1914	48.54%*	48.54%*
March 1, 1914 to May 1, 1916	48.54%*	36.25%*
After May 1, 1916	48.54%*	Free
Molasses dutiable until March 1, 1914	16.48%*	16.48%*
March 1, 1914 to May 1, 1916	16.48%*	12.40%*
After May 1, 1916	16.48%*	Free

Cane Syrups, same as sugar rates above.

SCHEDULE F

Tobacco and Manufactures of.

Articles.	Old Rate.	New Rate.
Cigars, cigarettes and all kinds of cheroots	$4.50 lb plus 25%	$4.50 lb plus 25%

SCHEDULE G.

Agricultural Products and Provisions.

Articles.	Old Rate.	New Rate.
Honey	20c. gal.	10c. gal.
Castor Oil	25c. bu.	15c. bu.
Alligator Pears	25c. bu.	10c. bu.
Preserves of all kinds	35%	20%
Pineapples in own juice	25%	20%
Evaporated fruits, banana figs &c	2c. lb	1c. lb
Lemons	64.85%*	24.03%*
Limes	85.42%*	42.86%*
Oranges	70%*	40.08%*
Grape fruit, shaddocks and pomeloes	38.45%*	20%*
Orange or lemon peel	2c. lb	1.c lb
Pineapples not in bulk	8c. cu. ft.	6c. cu. ft.
Pineapples in bulk	$8 per M.	$5 per M.
Starch	1c. lb	½c. lb
Ginger root, not candied	Free	1c. lb
Pimento, unground	Free	½c. lb

SCHEDULE H.

Spirits, Wines and other Beverages.

Articles.	Old Rate.	New Rate.
Bay Rum	$1.75 pf. gal.	$1.75 pf. gal.

SCHEDULE N.

Sundries.

Articles.	Old Rate,	New Rate.
Hats, straw, grass, palm, partly manufactured	35%	25%
Same, blocked or trimmed	50%	40%
Palm leaf manufactures, baskets, (except fans)	35%	15%
Sticks and walking canes	40%	30%

THE FREE LIST.

Articles.	Old Rate.	New Rate.
Annotto and extracts	Free	Free
Beeswax	Free	Free
Cocoa, crude & fibre, leaves and shells	Free	Free
Coffee	Free	Free
Divi-divi	Free	Free
Camwood, fustic, logwood	Free	Free
Other crude dyewoods	Free	Free
Crude tanning woods	Free	Free
Hides of cattle uncured	Free	Free
Skins for morocco unfinished	5%	Free
Calfskins	15%	Free
Lemon and Lime juice	Free	Free
Turtles and other shell fish	Free	Free
Tapioca, tapioca flour, cassava, tea and tea plants, tobacco stems	Free	Free
Logs and rd. timber	Free	Free
Timber, hewn, not sawed	½c. cu. ft.	Free
Sawed lumber, not specially named	$1.25 M. ft.	Free

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COCOA NURSERIES.

In addition to the Central Nursery kept by the Department of Agriculture at Hope Gardens, there have also been established four Nurseries in order to save plants being sent long distances when they suffer wear and tear. In the East End there is a Cocoa Nursery at Bath, this is in charge of the Assistant Agricultural Instructor there. There is another at Hartford which is taken charge of by Mr. L. A. Wates the Agricultural Instructor for East Portland and Eastern St. Thomas, who also superintends the Nursery at Bath.

The following are the particulars to date in these Nurseries :—

Hartford :

Distributions from April 1st, 1913.

Rubber	- -	350
Cocoa	- -	14,132
Coffee	- -	8,000
Total		22,482 Plants

Now in stock :—

2,250	Rubber
3,200	Cocoa

Estimate for year's out put 35,000

Bath :

Cocoa plants distributed	11,000
Estimate - -	10,000

Out-put will be about 17,000 this year.

Total output for the two places for the year will reach 50,000.

2. For the convenience of the West End, a Nursery has been established at Montpelier close to the Railway Station. While this is principally a Cocoa Nursery, the idea is also to develop it as a small Experiment Ground, and plants of Seedling Sugar Cane from Hope Gardens are also being raised for distribution.

Owing to the storm of November last year most of the young cocoa plants at this Nursery were destroyed and a new beginning had to be made in the Spring. This is in charge of Mr. J. Briscoe the Agricultural Instructor for the West Central district. He has issued 3,000 plants and by the end of November will have 20,000 ready to go out. These plants are sent by van to the following centres :— Darliston, Seaford Town, Hopewell, Bethel Town, York, Bickersteth and Lethe ; and arrangements are being made with the Agricultural Instructor for the West End, Mr. R. C. Somerville, to send to convenient centres in his district. Plants also go by train anywhere along the Railway line between Montego Bay and Appleton. Terms are that free grants of plants are made to small settlers up to 230. Large planters are required to pay 15/- per thousand plants to cover the cost of bamboo pots.

3. A Nursery has also been established in the middle of the parish of Clarendon, near Chapelton on Danks Estate.

The following are the particulars :—

40,000 cocoa plants will be ready for distribution at this Nursery during the three months beginning October 1st. A large number will also be ready for the Spring planting of next year.

The greatest care in seed selection is being exercised. The aim is to produce thrifty trees and hence attention is paid to obtaining seeds from the best bearing trees, hardy in appearance and healthy. No seeds are taken from diseased areas. Through the generosity of R. Craig, Esq., who has helped the Nursery in many other ways we are able to chose the *best* seeds from the *best* pods taken from the trunks of the *best* bearing trees in the *best* cocoa plantation in the parish.

The plants are given free of charge to small settlers on the one condition that they plant and care according to instructions and in order that it be possible to fulfil this condition they must be members of the Agricultural Society. Planters pay 7/6 per thousand the bare cost of sawing the pots.

Castilloa Rubber plants may also be had in small quantities on the same conditions.

Plants are distributed on Mondays, Wednesdays and Saturdays.

SAML. A. SCHLEIFER,
Agricultural Instructor.

Chapelton P.O.

(This Nursery is for the parish of Clarendon and near districts convenient to that parish.—ED.)

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COMMENTS.

DIARIES.—All our readers should remember to order diaries for next year. Every one should get into the habit of keeping diaries. Those who do not do so now, should begin on the 1st of January, 1914. Large estates, as a rule, keep proper records of their stock, and of all their business affairs, but generally, small settlers do not.

Even a small settler should have some record of what happens in connection with his business (even cultivating a few acres, is running a business) and he requires quite as much as a shopkeeper to have a record of his transactions.

Some small settlers do keep records, even if simple. Those who have never kept records of their business transactions, should begin now to do so.

The very simplest form is the keeping of notes in a Diary. There are money columns and the few transactions can be easily noted there. Those older men, who may not be able to write, will have sons or daughters who can enter the items. In addition it is well to note the events on a holding; when the crops were planted, when the mare was served, or the calf born. And so on.

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ROADS AND BROAD TIRES.—Roads cost a great deal of money to make and to upkeep. The use of broader tires certainly helps to prevent wear and tear of the roads and of the beasts. But without good roads there is a great loss of time, of animal flesh and damage to products and a set back our efforts to increase production. The Public Works carts are now fitted with broad tires and several planters used road tires on their waggons also. Every one should observe these tires and note the effect of them on the draught and on the roads.

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BRANCH SOCIETIES.—Some local Secretaries do not appear to understand the Rules yet, especially new Branches, although copies of the Rules and Regulations are always sent them.

The Affiliation Fee is 5/- per annum payable in April of every year. New Branch Lists should be sent in April of every year, but grace is allowed to the 30th of June. In addition to the Affiliation Fee of 5/- there is a charge of one penny for every member of the Branch over the number of 50, but as this number may vary, such additions should not be paid until we send in an account at the end

of the financial year. When new Branches start during the year they can charge their subscription *pro rata* to the 31st of March, as every Branch must start its year in April.

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SOLIGNUM.—Solignum the preparation advertised in this JOURNAL can be successfully used for the cure of foot rot and gumosis, etc., in Orange trees, and is being used for this purpose in Florida. It is also useful to apply as dressing to pruning cuts on all trees. Anyone whose Orange and Grape fruit trees are suffering from these diseases, may have a sample of Solignum free of charge, so that they may try the efficacy of this remedy; by applying to the advertisers Messrs. Leonard DeCordova & Co., Kingston.

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JERUSALEM PEAS.—I planted 15 manzanas (22½ acres) of a coffee field with Jerusalem Peas to smother if possible "Bermuda Grass" and it is astonishing to see the manner in which the Peas are beating the Grass. My idea is to save the Planter at least two shovellings per annum. As soon as I convince Planters of the good of these Peas we will by that time be able to supply them. The Peas are in the pod now and were planted in April this year.

Correspondent Costa Rica.

Bermuda Grass is our Bahama Grass.—ED.

This month (October) the Jerusalem Peas in some banana cultivations are a sight to see, vegetation knee deep and more, and masses of golden blossoms.—ED.

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ONION SEED.—We have some White Bermuda onion seed shipped direct from Teneriffe. Although called Bermuda onion seed, it is not grown there; it is got from the Canary Islands. There is a large industry in growing onions in Bermuda and that is why the seed came to be called Bermuda, but the seed is not grown there.

George Hodgson, Florist and Seedsman, Bangalore, India, offers seed of the Sunn-Hemp (Crotolaria juncea) which is largely used in India as a green manure to anybody wanting it. We do not know the price nor do we know the plant in practice if it is better than the luguminous crops we use here now.

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SHIPPING FRUIT.—An American farmer who recently visited an auction of New York apples in Liverpool, England, felt ashamed of his countrymen when the auctioneer knocked the head from a barrel and emptied the contents upon a table for the crowd to view. The apples were small, knotty and full of worm-holes, and did not bring enough to pay the cost of packing and shipping.—*Farm Journal, U.S.A.*

We thought it was only in Jamaica such tricks were attempted to be played! We once receiveda barrel of apples Halifax marked No. 1 grade and bearing the Government Stamp of Inspection. There were at least three different varieties of apples in that barrel and four different sizes.

Since then a good deal of warning and fining of fruit shippers has bettered things in Nova Scotia, we believe.

SHOWS TO BE HELD.—Porus—at Porus, Manchester, December 4th, 1913.

Clarendon—at Chapelton, January 7th, 1914.

Santa Cruz—at Santa Cruz, January 1st, 1914.

Stony Hill—at Stony Hill, St. Andrew, January 28th, 1914,

St. Thomas ye Vale—at Bybrook, Bog Walk, April 16th, 1914.

The Show arranged to be held at Rio Magno, St. Catherine, on January 8th, 1914, will not likely be held. The Sav-la-Mar Show arranged for the 1st of January, 1914, and the Christiana Show fixed for a date in March, 1914, have both been dropped.

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SISAL HEMP—With reference to my paper on Sisal Hemp published in the October number of your Journal I beg that you will make the following corrections:

In chapter 9, Yield &c., in the account of the tests I made with 5 leaves each, the printers have put in thus : 2 leaves result 6 ozs. fibre, whereas it should have been 5 leaves result 6 ozs. fibre as all my tests were made each with 5 leaves.

As it is misleading to the public please make the correction in the November Journal.

(Sgd.) D. J. STODDART.

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STOCK NOTES.

SHELTER FOR STOCK.—We note while travelling that there is a gratifying increase of small sheds in small settlers' places, as stables for horses and mules, and that the manure deposited is cleaned out and used on crops. But still pigs even when kept in pens have no cover. It is easy to lay sticks over one corner, and lay grass or palm leaves over as thatch, so that the pigs may have shelter. We have never yet seen, however, goats brought under a shelter, no matter how heavy the weather is, and yet they are, of all domestic animals (saving the cat) the most susceptible to harm by heavy rain. At the first drops of a shower, they stop feeding cower and double up, and if exposed to continuous rains they are all the time miserable looking. Comfort to stock means gain. Cows do not object to rain ; it is only in rain storms that they may be harmed. Goats, however, should be brought in every night to a pen, where there is a simple shed for shelter. The manure deposited will pay for the trouble, and the increased comfort will mean quicker growth and less mortality.

In the storms of November 1909 and 1912, small settlers stock tied out in the bush suffered severely. Many animals were lost, the chief stock to suffer being goats and donkeys. The cost of a small pen or a small shed, so that the stock could be brought in at night would not be more than the cost of one animal killed through exposure to storms.

The little extra labour involved in bringing in the stock at night would be compensated for by the increased thrift of the animals and by the manure saved from them.

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WHY HORSES SHOULD BE CLIPPED.—Horses represent a substantial investment and deserve good care. In their natural state they were not obliged to work. Since they are required to do labour they should be kept in the best condition for it. Few, if any, horses are at their best when the time of changing the coat comes. Un-

natural conditions should be provided against by clipping. How to properly care for work horses is much better understood now than ever before, and those who have studied the horse most carefully and tried different remedies are agreed that a good clipping is very beneficial to work animals. The skin is a most important organ for the elimination of waste, and it cannot properly perform its functions if it is not kept in a healthy condition, with pores open, etc.

Animals performing work with long coats suffer an unnecessary drain on the system. The sweat of the horse is not a simple mixture of water and salts, but of water, proteid and salts, and the observed loss of flesh which follows horses being worked unclipped, as was the practice a generation ago, is thus readily explained. The chances of chill following the return to the stable of an unclipped animal with a long coat have not been exaggerated. This covering, which, in a state of nature was admirable, becomes under artificial conditions and especially in a hot climate, a source of positive danger to him.

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MANURE FROM DAIRY COWS.—The value to put on manure from dairy cattle is a very complex problem, and one that perhaps has not received due consideration. On many dairy farms the owners figure their profits from the direct cash returns, without regard to the direct value obtained from the manure produced. Figures obtained by experiments conducted by Professor W. J. Fraser, of the Illinois Experiment Station, U.S.A., furnish some interesting data.

The manure is figured at 11 tons per head, for cows producing 8,000 lbs. of milk. On the 20-acre dairy farm at the University last year, cows which were kept in the barn during the winter and in a dry field during the summer produced 13 tons of manure per cow. The average value of the manure was put at 150 cents (6s. 3d.) per ton. At the Illinois Agricultural Experiment Station, on a three-year rotation of corn, oats, and clover, manure has increased the crop yield 160 cents (6s. 8d.) for each ton of manure used, figuring on the market value of the crops for the first three years after it is applied. No consideration is taken of the increased production from the effects of the manure after the first three years. At the Ohio Experiment Station the value of the crop yields has been increased 234 cents (9s. 9d.) for each ton of manure used.

From these figures, 150 cents. (6s. 3d.) per ton is a conservative value to put on cow manure which has been well cared for. Cows which produce less than 8,000 lb. of milk will produce, on the average, under 11 tons of manure, and those giving over 8,000 lb. of milk will produce more manure, but it will be of better quality, owing to the fact that they are fed on more concentrates. The value of the manure is therefore lowered 50 cents (2s. 1d.) per cow for every 1,000 lb. decrease in milk production below 8,000 lb., and raised 50 cents per 1,000 lb. milk over 8,000 lb.

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COWS MILK YIELD.—The record Shorthorn cow in the United States and the record of the breeds of the world, is Rose of Glenside, with a yield for a year of 18,075 lbs., and in the same herd the cow Belle Clare gave a yield of 15,215 lbs.

HISSAR CATTLE.—"You may be interested in hearing that some time ago I imported two Hissar bull calves. One died. The progeny of the other, crossed with native cows, is far ahead of anything to be seen here. It is no exaggeration to say that 18 months old calves are larger than the natives of 2½ years to 3 years old. And in one year the deaths have been only 2½% as against from 14 to 25% among the native stock, principally due to blackleg."

Palmira—Rep. of Columbia. CORRESPONDENT.

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HAND REARED CALVES.—When these little animals begin to scour, give them two ounces of castor oil taken in a spoon and placed on the back of their tongue, or shake up the castor oil in their milk, then mix one ounce of lime-water to one pint of the milk or one pint of gruel, fed. Keep the calves clean and give them a clean place to lie at night. Dirt, and wet places to lie in often cause scours, as well as a wrong diet.

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PIGS.—All through the Island the common practice is to tie out pigs with a rope fastened round the neck which often eats into the flesh ; sometimes the pigs are tied by one foot and here the rope also eats into the flesh. If tethering has to be done it should be done by the neck and never by the foot, and if a rope is used, a piece of old cloth should be twisted round it as a padding. But it is better in the end to use a chain round the neck with a proper swivel. Tethering pigs has some advantages as they can be frequently shifted to fresh clean spots : but every now and then pigs thus fastened get away and cause much damage. The best practice is to make stout wooden hurdles (a hurdle for those who do not know the term is simply a roughly made gate) and four of these fastened at the ends to enclose a square, make a good pig pen. Four light posts are driven into the ground at the corners for steadying the contrivance, otherwise a big pig would lift the hurdles up with its nose. Across one corner a few sticks (or two sheets of zinc) are laid and some grass on the top to keep the sun off the pig. Such a pen can be placed between rows of bananas, or coffee or cocoa, or on any poor spot in the cultivation, and plenty of banana trash or grass flung on for bedding. It is only 10 to 15 minutes work to shift this pen one space up between rows of trees or to another poor spot.

A good many Branch Societies are applying for pure bred boars under the arrangement whereby this Society will pay half the cost. Boars of the Large Black breed are wanted, but the next lot of young pigs will not be available at the Hope Stock Farm for about 5 months. There is a demand also for Poland China pigs but there are no pure-breds to be had. But cross breeds can be got, the sows having probably a good deal of Poland China blood in them and their progeny is therefore considerably more than half-bred.

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BREEDS OF PIGS:—The British breeds of swine have been introduced into all countries as improved breeds. Among them the breeds which stand out pre-eminently above all the others in the United Kingdom are the following :—

The Large White Yorkshire. The Middle White Yorkshire. The Large Black, or Sussex. The Tamworth,—a red pig. The Berkshire,—black with white feet, white tip to the back and white forehead. The Lincolnshire Curly Coated Pig,—black.

There are still also Small White Yorkshire and Middle Blacks. Small Blacks are not yet extinct, although not common.

The following are breeds in the United States :—

Poland China,—black or black spotted with white. Duroc Jersey, red. Chester White. Hampshire,—black with a white band round the middle. Essex,—a small black pig.

There is also a different species of pig, becoming a favourite, the mule-footed hog, which has a solid and not a cloven hoof.

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"I see in the August number some one is enquiring for a mange cure. A "*Fruit-man*" *who has been all through Central* America, up and down, told me that neat Kerosene Oil was all that was wanted. My Bull Terrier was bad with Mange and I spent several shillings on stuffs from Kingston, but they did not do a bit of good. I went for the plain Kerosene Oil and it did the trick A. A. one and the dog is as clear now as you want it, hair all O.K."

CORRESPONDENT.

We acknowledge the effectiveness of Kerosene Oil for Mange and other skin troubles, but if used often it burns the skin and will ultimately destroy the hair. We prefer to use the mixture often written about in this JOURNAL, of Kerosene, Sulphur 'Lard which has all the effect of pure Kerosene as an insecticide with the emollient virtue of Lard, which also holds the effect of Kerosene longer, together with the well known action of Sulphur in destroying parasites and fungi. The combination of sulphur with oil or fat, smartly rubbed into the skin of animals, stimulates the cells and promotes a healthier action of the skin. The combination is useful in parasitic mange and chronic eczema and psoriais. This combination also kills fleas and keeps them off, and if well rubbed in, does not leave any stickiness. Paranaph, a preparation of Kerosene, *Soft soap and Napthalene, made at the Government Laboratory is* also most useful as a wash for dogs. Paranaph being a sticky preparation has a more lasting effect than pure Kerosene. It should be used as a regular wash for dogs.—ED.

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CATS :—Cats are generally kept for catching rats and mice. They are not an unmixed blessing as they often take to destroying birds. Sometimes they are only kept as pets. Pets are usually over fed and are no use as destroyers of rats and mice. Very often cats are neglected, are not regularly fed, and no one dreams of washing them. Cats ought to be regularly fed and dusted occasionally with an insect powder to keep off the fleas with which they are often infested.

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POULTRY NOTES.

Early hatched pullets should now be in full lay ; and those hatched in May and June of the non-setting breeds, which are quick growers should if well looked after will lay by Christmas. Older fowls are in the moult or just getting through it ; those that are pullets of last year should lay by Christmas ; older hens usually take longer to get over the moult and do not lay until the spring. Unless hens are especially good layers it is not wise to keep them longer than two seasons, as they lay fewer eggs than pullets and

second season's hens, and take longer to get over the moulting. Exceptionally good layers can be kept for breeding stock and all their eggs kept for setting, as hens of three and four years give the best chickens.

We have had a hen laying well at 8 years, but it was remarkable for its good laying and a strong constitution, a steady layer and never ill, no matter the circumstances.

We have one now in its fifth year, the eggs from which are all set. These are exceptions however.

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A pinch of sulphur in the food of the moulting hens will assist the formation of new feathers. Dose at the rate of one teaspoonful to six hens.

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All the young cocks should be cleared out now by selling or eating except those to be kept for next season. Fowls degenerate very much here chiefly through want of a little care in mating, more than lack of care in feeding. People will feed fowls well but will not work to select their stock, first for constitution, second for quick growth, third for proficiency in egg laying. All these attributes can be secured by a process of selection, combined of course with intelligent feeding, but the best of feeding will go for nothing if fowls are allowed to interbreed at random and eggs for hatching are not selected from the best fowls. Take care to reproduce from the best, not from the worst.

The first care is to secure a good male bird, and by good, we do not mean one that simply belongs to a particnlar recognised breed; the individual bird is the first thing to look at. No cockerels that have been allowed to run with hens and serve from an early age, can produce good stock. And no sickly bird should be used. The separation of the sexs is necessary with all stock but with poultry and other small stock it is seldom done.

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When the weather is wet and cold, it is good to give some "Condition Powder" to fowls—something stimulating. These can be readily purchased. (See our advertisements).

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SEASONABLE HINTS.

This JOURNAL will not be in the hands of some of our readers until the third week of November. We wrote however, last month what was wanted to be done in November.

In some lowland districts, the weather was dry all October, to the 30th not even an inch of rain. The weather broke generally at the end of the month. The Savannahs of Manchester and St. Elizabeth and the Pedro Plains in St. Elizabeth, unfortunately had such dry weather, that corn and cotton could not get a good start. In other places, the West-end and East-end especially, there have been heavy rains but not *the* "Season rains." November may bring heavy rains.

Those who planted early, such seeds as Cabbage, Tomatoes, Lettuce, in boxes or beds will be in a position to plant out. It is still good time to plant all vegetable seeds.

We have many kinds in stock for the convenience of members, and Merchants in Kingston also stock them. Look at our Advertisements. Without exaggeration we would say that a hundred pounds worth of vegetable seeds are now sold where one pound worth was sold ten years ago. This is good. Vegetables generally called "Garden" vegetables as distinct from "Provisions," should be on every one's table. They are not valuable for the actual nourishment they contain, that is got from the peas, beans, fish, meat and yam and rice, that are eaten, but vegetables, especially green vegetables, contain valuable salts; which purify the blood, and are a necessity to good health. Then there is usually good sale for such vegetables, but their first place should be on the home table.

The diet of the ordinary small settler is usually very monotonous, but there is no need for this. There can be great variety and therefore greater relish imparted to the food eaten and what is relished is usually better digested than food not relished—within reason of course.

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Plant a succession of cabbage, turnip, carrot, tomato, lettuce, okra, cucumber seeds, and especially "French" Beans. Most people make one big planting in November and no more. They have a glut, and the markets sometimes have a glut of vegetables, all at one time, from the end of January to the end of March, and though there is a good demand then because tourists are here in numbers, still the home, and the markets are usually bare of such vegetables from May to December.

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POTATOES.—We import potatoes usually called "Irish" in November and will have them when this is read, if any are left from orders already sent in. We will again import in January and March.

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BANANAS.—The hot weather has continued all through October, when we get our heavy rains in October the cool weather begins immediately after. This year this change is deferred to November. When it comes there is at once a great difference in the growth of bananas. It is hard to get this understood by small settlers, that in order to get bananas to fruit in the Spring months, March to June, they must aim to get their banana plants and ratoons full grown and looking to shoot by the end of October as after that there is little growth and now if bunches shoot in November they will not be fit until March. In most places the bananas are timed well this year but largely by accident, as the storm of November last came at a good time: it cleared most of the full grown bananas and left suckers from breast high to knee high which are now full grown. Many, especially small settlers, however will be hopelessly late with their fruit for 1914. "Followers" even on "plant" bananas which being more open grow quicker than young suckers

on ratoon bananas should be breast high now. Refer to notes in last JOURNAL. Estates usually understand this but few small settlers will look far ahead—1914 is a long way off.

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In the upland parts over 1,500 feet there should be no delay now in planting bananas to fruit in the spring of 1914. In the higher parts planting is often done earlier, August and September but much depends upon the soil and the cultivation intended to be given. A good sucker planted with good trenching (drainage) and forking will bring bananas in two or three months ahead of those bananas simply planted in a hole and not forked and with the land not trenched.

Planting large selected suckers makes a difference of at least one month's growth. Trenching, especially heavy lands, may make a difference of two months in growth. Forking may make a difference of two months. Total, five months of time saved, and better fruit than by scant attention. If you rent lands, 5 months is surely worth saving. Give good attention all along the line in growing bananas. Those who require to plant bananas in January should begin to get their land ready now.

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WEATHER.—Read the article in this JOURNAL on shelter for stock.

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ORANGES.—In December take lime wash and scrub the bark of the trees to take the moss off. Prune off all dry and useless branches which do not bear.

In pruning do not leave any stumps ; cut flush with the trunk or limb, and tar the cut surfaces. If there is any rot or flow of gum at the roots, cut clean into sound wood and tar or use solignum.

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COCOA.—Read last months note's. Fifty per cent. of the older cocoa trees in this Island are dying out ; on small settlers' places the proportion is larger, and all for want of proper pruning. Cutlass chops, stumps left, result rot. Branches are hollow, the tree trunks are very often hollow, and in a few years the tree dies ; trees too which are 12 to 15 years old, which should be in full bearing and last the owner's life time. What a loss ! And the owners are often unconcerned, take it all as a matter of course, and are always planting a few more trees to make up, and so will never reap crops which their land should be able to give them. Thousands of cocoa trees now are affected with Canker. The Agricultural Instructors can save thousands of thousands of trees if the people follow their advice and practical lessons in pruning as given in the fields.

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COFFEE.—Whenever the berries are cleared off the trees is the time for pruning. In the lowland places and middle uplands picking had been going on all October. Look out for an article on pruning in next JOURNAL.

There have been more troubles affecting plants this year than in other years. Probably however there have been years quite as bad, and it may be that the troubles have been reported to us more

this year. The Corn growing Competition in School Gardens has met with many difficulties. First, when the seeds are planted, field mice and sometimes rats eat them as they begin to germinaté, then when the corn comes above the ground, cut worms attack the tender plants, then when the corn is about 18 inches high or so, caterpillars in some places attack the heart of the corn plants.

A beetle has been reported to us now as eating the corn plants, but we have never observed any kind of leaf eating beetles attacking corn. There is no reason why they should not however if Fiddler Beetles eat the leaves of economic trees like oranges and cocoa when the leaves are young, as they do, though not to any extent.

One Teacher sprayed his corn plants with a strong Paranaph tick mixture and killed all the plants but not the Bahama Grass which was a weed in his garden. Any Insecticide made to kill ticks on animals will certainly kill tender plants as ticks are the hardest parasites to kill. We have known however all these troubles for the last ten years in the growing of corn although we do think that this year has been worse than usual.

We have stocked Vaporite and Apterite to kill pests which lurk in the soil and attack the roots of plants. We have Slug Shot, and Paris Green, which can be mixed with lime to dust into the hearts of the plants and around the plants which will kill caterpillars and any pests that eat the leaves.

If the seed is prepared for planting by passing through a mixture of wood ashes damped with kerosine, or is steeped in tar water for 6 hours as we have often stated, it would germinate all right and not be attacked by mice.

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BRANCH NOTES.

Stewart Town (Trelawny).—The regular monthly meeting was held on Thursday evening, Oct. 2, 1913. Mr. John Stockhausen, President, in the Chair. The Meeting was opened with prayer. Present at the Roll Call:—Mr. E. Arnett (Instructor), seven members, the Secretary and a visitor, Mr. Gray, junior. The minutes of the last meeting were read, and after some slight corrections were confirmed. Correspondence from the Secretary of the Parent Society *re the Produce Protection Law, and Prædial Larceny respectively were read.* With reference to the buying of produce, Mr. A. W. P. Gray argued that if the Produce Protection Law was to be revised in the direction of stopping the buying of cocoa in pods it would work a great deal of hardship on some poor people who grew cocoa. The Instructor thought it a waste of time to discuss the matter without having the copy of the Law dealing with the subject. Mr. Stockhausen therefore moved, seconded by Mr. Herbert Grant and agreed, that the Secretary of the Agricultural Society be written to, asking him kindly to obtain copies of the Produce Protection Law, the Prædial Larceny Law and the Vagrancy Law for the Branch for their guidance in discussing these matters. It was moved and seconded and unanimously agreed to, that Mahoe, Mahogany and Trumpet trees be added to schedule (a) of the Prædial Larceny Law 4 of 1909. With reference to Prædial Larceny several opinions were expressed. The Rev. Mr. Thrift entered at this stage of the meeting. It was however agreed that a Committee should meet on Monday, 13th Oct. at 7 p.m. to consider the

matter, report at the next meeting of the Branch, and forward recommendations to the Parent Society. Owing to the failure of some of the Authorized Persons appointed by the Branch to conform to the requirements to be present at the monthly meetings to give their report of work done during the month, the Secretary was instructed to write and warn them that unless they appeared at the next monthly meeting and give their reports the Inspector General of Police would be respectfully asked to take off their names from the list of Authorized Persons, and other persons more capable and energetic would be appointed in their places. The matter of the Show in connection with the Branch to be held on April 30th, 1914 was brought up by the President. The Instructor informed the meeting that he would be unable to give his help by attending the Show Committee meetings until the end of February, as from December to February he would be away in the distant parishes of St. Catherine, St. Thomas and Portland judging the Prize Holdings Competition. From the end of February he would be back in the Parish, he would then endeavour to attend the Committee Meetings. After the third week of March, he would be able to help in arranging the grounds. The Committee appointed to deal with the Praedial Larceny question on the 13th Oct., was also appointed the Show Committee. It was suggested that the Secretary be instructed to write to the Clerk of the Courts for Trelawny eliciting information on the following questions:—1. What the regulations are at present under which summonses are issued? 2. At what places in the Parish are they issued? and 3. When are summonses issued? with the view of requesting that Jackson Town or Clarke's Town be made places for issuing summonses to meet the convenience of persons who live at this end of the Parish, 18 miles away from Falmouth. A petition signed by over 40 persons asking the Custos of the Parish, the Hon. L. C. Shirley to recommend the Rev. W. Scrivener Lea to His Excellency the Governor as a fit and proper person to hold a Commission as one of His Majesty's Justices of the Peace for the Jackson Town, First Hill and Sawyer's Districts, was presented by Mr. Chas. McFarlane to be endorsed by the Branch. The meeting realizing the necessity for a Justice of the Peace for the districts named, willingly assented and the President and Secretary were asked to sign the petition on the behalf of the Branch of which Mr. Lea is a member. The business of the evening being concluded, the meeting terminated at 9.30 p.m.—JOSIAH JOHNSON, Secretary.

Mahoe Hill (St. Mary).—The monthly meeting was held at the schoolroom on Thursday 2nd, 5 p.m. Eight members were present. N. Guscott was enrolled as new member. The President being absent, the Vice-President took the Chair and called the meeting to order. The minutes of the last meeting were read and confirmed. The adjourned discussion *re* buying cocoa in pods was resumed. The Secretary moved the following recommendations which were carried unanimously. Subsequently the President came in and after they were read, he objected to paragraph 2 and 4, and asked that it be recorded. 1. That not less than 5 doz. pods be sold at any time. 2. That no shopkeeper be granted license to buy pod cocoa at least within the radius of a mile from his shop. 3. Any person convicted for violating any of the provisions of this law forfeits his license. 4. No license be granted to any person who is not competent to keep a proper book according to the requirements of the Law, and that the Produce license be reduced from £5 to £1. 5. That there should be appointed 12 or more competent members from the Branch Societies to inspect produce-book recording date and hour of such visit immediately under last entry. These persons to have power not only in their own districts but wherever produce was purchased. A copy of these recommendations together with a covering letter be sent to His Excellency. Moved by the Secretary, seconded by C. Ayre and carried. 1. That the Parochial Board be respectfully asked to enquire from the Superintendent of the Roads whether he had received a letter from the Secretary of this Society informing him of the dangerous condition of the road after the last November weather, 1912. If so, why, he never replied or inspected or sent his Assistant to visit the road? When last either himself or his assistant visited this road? Is it a part of his duty to visit and give instructions to the headman

how the road is to be best improved according to the amount of money available for the safety of man and beast? 2. Is it a part of his duty to inspect the work to see that it is properly done before being paid for? 3. Have the inhabitants of these districts any claim on his time and service as taxpayers? 4. Is he aware of the present condition of the track called road and will he visit it at an early date to see how it may be improved? Mr. C. Henry brought the matter of the condition of things going on at the market at Annotto Bay. That things taken to the market, and not sold, if left in the market, on the owners return, some portion may be found taken or the whole, and no one is apparently responsible for it. The market Clerk said he is not responsible. Mr. N. Guscott had same complaint. The Secretary was asked to bring the matter to the notice of the Parochial Board asking them to remedy the evil. Notice given by Vice-President to move at the next meeting that the monthly meeting be changed from the last Thursday of the month to the first.—W. A. SIBBLIES, Secretary.

Ginger Hill (St. Elizabeth).—The regular monthly meeting was held at Ginger Hill schoolroom on Thursday, October 2nd, 1913. when there were present: Messrs J. Briscoe, Agricultural Instructor, twelve members and the Secretary. The Chair was occupied by Mr. Parkins. The question of Prædial Larceny occupied most of the time. The meeting was unanimous on the establishment of Prison Farms where the prædial thief should be put to work after he is convicted. The meeting was of opinion that the "Authorized Persons" are not watchful enough; and they were urged to be more vigilant in their work. A letter from the Parent Society *re* Cocoa-pods and Mahoe and Mahogany bark was read. As our district is not a cocoa-growing district we are not affected, but we are in sympathy with any measure that may be adopted for the safety of those who are affected. With regard to Mahoe and Mahogany bark, it was fully agreed that those be put in Schedule (a) of the Prædial Larceny Law. The Instructor played a very helpful part in the meeting giving hints and suggestions where needed. He promised to visit fields where his services will be required, on his next visit, and have demonstrations. The matter in connection with the road through Crawl Pass was brought up, but it was thought best to let that lie over as the Government is not in a position to take up that matter now. At the next meeting on the 6th of November next Mr. Briscoe will lecture on "Rotation of Crops" and Mr. Parkins will read a paper on "Co-operation." The meeting rose with the singing of the National Anthem.

E. S. JARRETT, Secretary.

St. John's (St. Catherine).—A regular meeting was held at Kitson Town schoolroom on Thursday, 2nd October, 1913, at 7 p.m. Among the fifteen members present were Messrs D. V. Anderson (President), E. Wilson (Vice-President), H. L. Mossman (Instructor), S. A. Banton (Secretary). There were several visitors present also. The Secretary informed the meeting that during last month when the Instructor and himself were the only persons that turned up owing to the recent rains, he had brought the Minute Book, but since then he had mislaid it. Rather than delay the business it was decided that the minutes should be taken as correct as they were already published in the papers. The proceedings were opened by a short prayer from the Secretary. Several letters were dealt with. 1. Informing the meeting that the Secretary of the Parent Society could not procure a good "mutton goat," but that the Santa Cruz Branch have a magnificent goat. It was agreed that the Secretary should confer with the Santa Cruz Branch in order to find out whether they could assist us in any way. 2. That no arrests had been made in the entire Parish by the "Authorised Persons" in spite of the prevalence of Prædial Larceny. The Secretary announced that he had had three applications from three members in different districts to be nominated as Authorized Persons viz: Mr. Charles Grant for Old Road District and Messrs Claudius Lewis and David Francis for Labour Hall and Aylmers respectively. After the nomination was discussed and the Instructor explained lengthy and clearly how the appointments should be made and the duties of these persons; it was agreed that Charles Grant's appli-

cation be entertained but that those of the other two should be laid aside until the Special Committee is in possession of the necessary information when they will be finally dealt with at the next meeting. The Instructor being a J.P. instructed the Secretary to notify all the Authorized Persons to meet him one hour before the hour fixed for next meeting when he will instruct them on their duties. The Secretary was authorised to forward the name and address of Charles Grant as an Authorised Person to the proper authorities. Mr. Mossman began his lecture on Corn. He showed how corn can be made to pay if the necessary attention is given to the planting and cultivation etc. He drew his hearers attention to the corn that was now growing in the Kitson Town school garden from the selected seeds. He also informed the meeting that the teacher at Guanaboa Vale had recently planted not a square chain of corn but that he had got about 5 bushels from it. This worked out at 50 bushels per acre. There is much to be gained by proper methods of planting. The President briefly complimented the Instructor for his address. Mr. Mossman in reply said he would be glad if any one would ask questions at these meetings. He would suggest that a box be made and any one who had any difficulty whatever with his cultivation or his stock, could put his difficulty in writing and ask what should be done when he would gladly answer. It was suggested that the meetings in future be held at 4 p.m. After the singing of the National Anthem the meeting on the motion of the Secaetary adjourned until the 2nd Thursday in November.—S. A. BANTON, Secretary.

Mocho and Brixton Hill (*Clarendon*).—The usual monthly meeting was held in the Mocho Schoolroom on Friday, 3rd October, 1913. Present, J. Aug. Rhoden, Esq., President, in the Chair, J. Rattigan, Esq. (V. P.) Rev. C. H. Baker, the Agricultural Instructor, A. A. Green, Esq. (J. P.) and ten other members including the Secretary. The meeting opened with prayer as usual. The minutes of last meeting were read and confirmed. Arising out of the minutes the matter of finances came up for discussion. It was thought at first to have eight names of certain members struck off the list, but after some discussion it was thought advisable to instruct the Secretary to write them, giving them a further chance, and if the amount is not settled by next meeting their names must be struck off. Moved by the Rev. Baker, seconded by J. Rattigan. It was moved and seconded that the Secretary write at once to all members in arrears to have their subscriptions settled in order not to have their names struck off. Grind Stone—This caused a lengthy discussion. It had been discussed at previous meetings with no definite result. It was agreed to that two grind stones of 15/- each be bought not including the fittings. A committee was appointed to see after this. These stones to be put up at convenient places to suit the members. Moved and seconded that these stones be bought at once. At this stage the Instructor brought up the matter of the Clarendon Show at Chapelton to be held on the first day of January, 1914, by the Clarendon Branches. The Instructor made some remarks on the proposed Show and further urged this branch to co-operate and give it the hearty support with the best exhibits possible. It was unanimously agreed to. Mr. Green suggested that each member be asked to subscribe 1/– and not less than a 6d. towards the Show. Moved by the President, seconded by Mr. Rattigan. Carried. The Instructor wanted to know the truth of the matter, why Mr. Dyer, Authorized Person, did not get his pay for the arrest he made lately and asked the Secretary to make enquiry and let him know soon. The question of Authorized Persons was deferred to next meeting. Mr. Rattigan suggested that the next meeting in November be held at Brixton Hill. Carried. Meeting adjourned till first Friday in November, the 7th.—S. AUG. FRANCIS, Secretary.

Gibraltar (St. Ann).—The regular meeting was held on the 3rd Oct., 1913, at Somerton. 10 members were present. G. Arnett, Esq., Agricultural Instructor for the district was also present. In the absence of the President, the Vice-President, Mr. T. A Campbell, presided. The minutes of the last meeting were read and confirmed. Correspondence was read. With regard to the free distribution of seeds among the members the Instructor suggested and it was agreed to

that a supply of vegetable seeds be purchased out of the funds of the Society for the purpose, the matter to he left in the hands of the Instructor, the Vice-President and the Secretary. As the September JOURNALS were not yet to hand, the Prædial Larceny question was deferred to November 4th, when a public meeting will be called to discuss the subject and make recommendations. The Instructor, however, spoke on the evil effects of prædial larceny. It was agreed that at the next meeting of the Society Authorized Persons be recommended for the Somerton district. The matter of the Somerton road again came up. The Instructor in his usual lucid manner showed the urgent need of such a road. It is the intention of the Society to approach the government on the matter. It was brought out that there is the need for a member in the Parochial Board from this part of the Parish to represent these districts which are so badly neglected. The Secretary suggested that from time to time the Instructor brings before the meeting any important matter, agriculturally and otherwise that he has experienced around the different parts of his district and the island generally, which may materially help the members. The Instructor gave a short address, dealing chiefly with coffee. A petition *re* a Post Office for Gibraltar was drawn up and read at the meeting, and it was moved by Mr. Jas. McNish and seconded by Mr. David Livermore and unanimously carried, that it be signed and sent to the Post Master General. The need of a Post Office here cannot be over-estimated. After a few minor points had been dealt with and a vote of thanks accorded the Instructor, the meeting terminated with the National Anthem.

J. B. MORRISON, Secretary.

Reach (Portland).—The regular monthly meeting was held in the Church of England Mission House on Tuesday, 7th October, 1913, at 3 p.m., when the Chair was taken by the President, Mr. Ernest Louraine who opened the meeting with prayer. The Instructor, the Secretary and twenty-two other members were present. After the minutes of the previous meeting had been read and confirmed correspondence was also read. The Secretary read a letter from the Parent Society on "Prædial Larceny" for discussion. With the consent of the President the Instructor explained the matter in a simple form and also quoted the remarks from page 10 of September's JOURNAL, by Hon. Geo. McGrath, His Excellency the Governor, Hon. S. S. Stedman and Mr. A. C. L. Martin. Among the four suggestions on Prædial Larceny, this branch disagrees with No. 1 and No. 2, while No. 3 and 4 were agreed to. It seems that prison in Jamaica is a resting place for Habitual Criminals and they enjoy too good a time, as every prisoner discharged from Prison is often in his best condition. The Instructor gave an address on the Prize Holdings Competition. Mr. Alfred D oyley moved a vote of thanks to the Instructor for his kind attention towards the Branch, seconded by A. Leomine, Esq. Since this Branch nominated Richard Allen as an Authorized Person there is a noticeable decrease in Prædial Larceny in the district. The discussion on road for next meeting. The Instructor promised to give a demonstration at E. Donegan's and A. Leomine's fields on the first Tuesday in November at 10 a.m. There being no more business the meeting adjourned till the first Tuesday in November at 3 p.m. The singing of the National Anthem brought the meeting to a close.—LAMAN RICHARDS, Secretary.

Labyrinth (St. Mary).—On Tuesday the 7th October, the monthly meeting was held in the schoolroom. The President presided. A goodly number of members were present. Minutes of the last meeting were read and confirmed. Matters arising from minutes were thoroughly dealt witb. A letter from the General Secretary with regard to a goat and pig was read. The Secretary pointed out the mistakes witb regard to the delinquency in not getting last month's JOURNAL. Matters regarding the Corn Competition were dealt with. Finding that the subscription raised is not sufficient to get the prizes the members agreed that some of the gentlemen around be written to asking their aid. The Secretary was asked to undertake the task. At this stage the Secretary suggested that something of interest should be done during the meeting so as to remove the monotonous procedure: He moved that Debates could be had at some of the meetings,

It was unanimously agreed to. At our next meeting a debate on "The Cow or Horse which is more profitable." Mr. S. Wallace will lead for the Cow, seconded by Mr. S. Hyatt, and Mr. A. Moncrieffe will lead for the Horse, seconded by Mr. Hoilet. At this stage the President asked that the Authorized Persons be prepared to give in a report at next meeting. He also asked the members to suggest plans as to how prædial larceny may be put down. With a few minor matters the meeting adjourned with the singing of the National Anthem.

Q. ALPHONSO GOBAGEN, Secretary.

Whitehouse, (Westmoreland).—The October meeting came off in Kings School on Tuesday 7th October, 1913. Present Mr. Joseph Wedderburn (V.P.) in the chair; twenty-six members; Mr. R. C. Somerville, Agricultural Instructor, and many visitors The Corn Competition came off just before the meeting—the judges being R. C. Somerville Esq., and Mr. & Mrs. McLeod. Mr. Somerville reported on the judging and said that after a keen contest the first prize was given to Mr. William Jamieson, the second prize to Mr. Ben. Snow, and third prize to Mr. Jonadab Robinson. Mrs. McLeod kindly distributed the prizes during the meeting. Several communications from the Parent Society were read and discussed. The meeting decided, that as this is not a cocoa growing district no opinion *re* selling of cocoa in pods would be expressed. It was agreed that Mahoe bark and Mahogany should be added to Schedule (a) of the Prædial Larceny Law 4 of 1909, as valuable trees have been destroyed by "barking" for dye. Prædial Larceny was warmly discussed and resulted in the meeting giving the following recommendations as a deterrent of the prevailing evil. (I.) Juvenile offenders under 14 years of age as well as the parent or guardian should be summoned, and the machinery for so doing should be made more simple than at present. Many parents either from neglect or wilful intent encourage their children to steal. In these cases the offending child should be flogged, and parents fined according to the discretion of the magistrate. This fine to be collected by revenue officers as an extra tax. (II.) Adult offenders who have stolen from habit should be flogged for the first three convictions, and the criminal made to work in the parish in which the offence is committed or on any other public work. A fine sufficient to pay complainant and cost of prosecution to be inflicted on offender. Also, a strong vagrancy law to require every able bodied adult without visible means of a livelihood to be prosecuted for abstaining from work." An interesting debate "Mixed planting of crops or separate planting—which is better," next had the attention of the meeting and resulted in the unanimous agreement that separate planting is better. Meeting closed with National Anthem.—M. HEWITT, Secretary.

Pedro, (St. Ann).—The usual monthly meeting was held at Waltham on the evening of the 8th inst. The Managing Committee met at 5 p.m. There were present Rev. T. Whitfield, President; Messrs. Arnett, Instructor; and several others. The chief business, viz., to devise means for interesting the young people in the Agricultural Society was placed before the meeting by the President in a short speech: Others stated their views on the necessity of keeping the young folks in close touch with them, the elders, so as to influence them morally, mentally and socially. It was decided to form a Young People's Branch of the Society. Lectures, addresses and concerts will be given for the benefit of this juvenile division. The first lecture will be given by Mr. Arnett at the November meeting. A penny concert will take place on the 29th December next. The Secretary is directed to ask permission of the Rev. G. Turner to have the concert in Waltham chapel. Mr. Nembhard said that the rule to obtain the use of any appliance of the Society such as Grindstone or Spray one must first be a member is selfish and coercive. In this he was backed by the Instructor who said that he knew of no other Branch adopting such a policy. The President who framed this rule thought it a right thing and defended it. The Committee also decided that a Corn Mill be bought for the use of the Branch. At this stage the Committee Meeting adjourned. There was a good turn out of members and visitors. After prayer the minutes of the October meeting were read and confirmed after one or two minor corrections. The As-

sistant Secretary gave reason for not reporting the last meeting. In answer to the President's enquiry it was stated that no one used the Grindstone since its erection. The recommendations of the Managing Committee *re* the formation of a Juvenile Branch and the purchase of a Corn Mill were put to the meeting and carried. Mr. Nembhard here handed in the following notice of motion for next meeting viz., "Considering that the rules of the Branch limiting the use of its appliances to members are selfish; it is proposed that new rules on a more generous policy be adopted whereby outsiders on payment of a fee, to be fixed, may have the benefit of said appliances." Five persons paid in their subscriptions and became members of the Board. Copies of September JOURNAL were distributed by the President. Reference was made of the proposed local show to be held in January next. Mr. Fred. Nembhard raised the point of how the Government could help itself and the peasants if it allow them to use the lumber inevitably cut down and burnt or left to rot in cultivating the Crown Lands. Better houses mean higher rates of taxes. The President said he would communicate with the Surveyor General on the subject. The Secretary suggested that the members form a combine with the view of getting the best price for their produce by shipping them. Mr. Arnett showed that this is impracticable as an agent would have to be provided to receive the goods at the other side. He said the members could co-operate and cure their products and then treat with a local merchant who, getting a quantity of first class quality would offer a higher price. Mr. Flash spoke of the necessity of a road connecting New Hall and Ewarton as that would considerably shorten the distance between the two places. The Instructor complimented the Branch on the large turn out of members at every meeting—this one in particular. He hoped this interest will continue. With the singing of the doxology the meeting came to a close. The following morning the Instructor demonstrated the use of the Spray Syringe by spraying the Secretary's two ponies.

W. B. NEMBHARD, Assistant Secretary.

St. John's (St. Catherine).—A special meeting was held on the 8th October. Among the twenty members present were Messrs. D. V. Anderson, President; E. P. Wilson, Vice-President; S. A. Banton, Secretary; R. McBean, J. Gonzales, E. Butler, G. Morris and A. Gonzales. There was also a "large turn out" of the inhabitants, most of whom assisted the members materially in the discussion on Prædial Larceny. The Chairman gave reasons why the meeting was convened. He then called upon the Secretary to read the circular from the Parent Society. After reading Mr. Banton said he was much pleased to see such a large gathering. This showed the interest taken in this matter which they are now about to discuss. As far as the circular goes he was in thorough accord with paragraph 2. He held, after studying this question for a number of years, that there are several causes for the prevalence of Prædial Larceny, and in order to deal effectivel with this great evil, these causes should be remedied as much as possible. From what he had read in the newspapers and otherwise he could come to no other conclusion than that poverty and ignorance are the chief causes in assisting to suggest what is to be done in removing these causes then he felt sure that they would not have met in vain. Mr. Boothe said he held that as long as men with large families can only earn 4/- per week, they will always be in want and ignorant people who are in want generally steal. Mr. Wilson said there should be a minimum living wage of 2/- per day for labourers. How a large family can be reared on 1/3 per day he failed to see. He was of opinion that the Government should repeal the Landlord and Tenants Law. He knew of several cases in which tenants were made "scape goats.' They were rented lands and as soon as their crops were matured they were dismissed. George Morris gave an account of how he was dismissed by a well known proprietor and could not enter any of his fields. Mr. Gonzales said no reasonable man can or will deny that people steal from various causes such as want, idleness, lack of suitable lands to cultivate, &c. If the Government would buy large properties and sell these on the instalment system at a reasonable rate, he ventured to think that the peasantry would be happier and many that steal now

would cease to do so. Many persons after being badly treated by their Landlords cease to cultivate and it is well known what often follows in such cases. Mr. Gonzales was of opinion that the Government should have central factories where people could sell these products that were unfit to be sent abroad. This would give work to many who are now unemployed. Various other suggestions such as Compulsory Education in the most backward districts where all children would learn in their youthful days to respect the Laws of the country as it is a fact that where ignorance is ripe there are generally more Prædial thieves. Another suggestion was that there should be more police patrol at nights. After a careful summing up of the speeches the following was unanimously adopted :— That this meeting is of opinion that in order to reduce or to deal effectively with Prædial Larceny it is necessary [a] That a "living wage" of 2/- per day be paid to the labourer. [b] That a Tenants Protection Law should be made and that the Government should be empowered to veto any one sided agreement made whereby tenants can be dismissed after improving certain lands. Full compensation for improvements should be given. [c] That the Government should purchase large properties and sell these on the instalment system at a reasonable rate to small settlers. [d] That the Vagrancy Law should be amended so that men and women could be indentured to planters. This is in accordance with paragraph 2 of Circular. After their time is up they like the Coolies would get a lump sum. This would also put a check to the Immigration of Coolies as employers would be sure of labourers. [e] That Central Factories and Industrial Schools should be established. [f] That more Police Patrol is necessary. [g] That Compulsory Education in the most backward districts is necessary as it is a well known fact that there are more habitual criminals in backward districts. [h] That a Penal Settlement for thieves convicted after a certain number of times should be established; a part of their earnings should be sent to those dependent on them.—S. R. BANTON, Secretary.

Darliston (Westmoreland —The monthly meeting was held in the Enfield Schoolroom on Friday 16th October at 9 a.m. In the absence of the President J. W. Menrell Esq., C. J. Stewart Esq, took the Chair. There were present 18 members, R. C. Somerville Esq., Agricultural Instructor, and the Secretary. The minutes of the last meeting were read and confirmed. As arising out of the minutes the Secretary read an important communication from the Seerctary of the Parent Society bearing on Prædial Larceny requesting that the subject be discussed on the lines laid down in the letter. The Rev. J. Carnegie who was present was asked to take the chair at this juncture. Mr. Stewart vacating in his favour. The Chairman requested that the points be discussed as they appeared on the circular. (1) *Flogging,* The Instructor said he was pleased to see so many men of Intelligence assembled at the meeting and he hoped the subject could be considered so that something concrete could be sent up. He was recently converted to the good result of flogging. In collecting information on the subject he was surprised to find that over a period of years in Westmoreland only one man of the many who had been flogged had come back before the Courts for the offence. In flogging there was the element of shame and ridicule as well as the pain the man had to suffer. He thought that if a flogging was degrading and brutal so was the offence of stealing. Prædial Larceny was always with us and when good times were here it did not abate, but people didn't make so many complaints at their losses ; they could better afford to lose the articles stolen, not so many prosecutions and arrests were made as the effect of the evil did not seem to be so much felt. He was therefore an advocate of flogging. Mr. C. J. Stewart said he endorsed every word used by Mr. Somerville. He had been for years an advocate of whipping the thief. The man convicted should be made to suffer pain in mind and body by being flogged in public where he could be seen and thus a warning could be given to intending offenders. The present means of punishment were inadequate. In many cases relatives could receive a man coming from prison in the same spirit as a man would send to meet his son coming from College. It seemed very difficult to arouse public opinion on the matter. The Rev. C. R. S. Pike said he had lived many years in British Guiana and it seemed

to him that the law obtaining there providing for the correction of Prædial Thieves was the only remedy that could be applied to the evil in this colony. When a district became notorious for prædial larceny the Governor of the colony had the power in Privy Council to declare that place a proclaimed place. The Magistrate would have power while the proclamation was in favour to inflict flogging and imprisonment. The effect of this law was most salutary—Prædial Larceny always declined in a proclaimed place. He was a sympathetic man, but his sympathies were with the hard working settlers who were being pauperized by able-bodied thieves. He did not consider it brutal to flog a thief. In British Guiana the thief in addition to his flogging had to work on the public roads and thus the element of shame and ridiclue had its effect. He begged to move the following resolution :—"Whereas it is evident that some drastic remedy is necessary to check the evil of prædial larceny Be it resolved that the Government be asked to introduce an amendment to the present Prædial Larceny Law making flogging a part of the punishment for such a crime and that such flogging be not general in its application, but be put in force by proclamation of the Governor in Council in such districts where the crime has become prevalent, the Resident Magistrate then having power to order same to be administered at such place as he may think proper in the district where the offence was committed." This resolution was seconded by Mr. C. J. Stewart. Mr. A. B. Ventresse supported the resolution. He said : No honest man need be afraid of laws providing for corporal punishment. He was not afraid of being flogged. He did not understand where the brutality came in. He knew that the resolution would be met with opposition, but it was becoming evident that the consensus of opinion in this island was for flogging. The thief should not be flogged within the prison walls but at some public place. The D. M. O. who has supervised flogging had told him that after 20 years experience he had facts to hand that corporal punishment was the only remedy. Only one man had come back for the offence after a sound birching. Mr. J. H. Hedley, the Secretary opposed the resolution. He said it was *brutal* and *savage*, and Prædial Larceny was not worse than other forms of stealing. The man who robbed the Government Chest was not flogged, why should the poor man who steals corn, or yam or oranges be flogged for the offence. He therefore, opposed the resolution. Put to the vote, the resolution was carried, all voting for it except Messrs. H. Smith, S. J. Philp and J. H. Hedley against it. Miss R. E. Richardson did not vote. The Chairman asked Mr. Ventresse what was done in Canada to put down Prædial Larceny. Mr. Ventresse said : "Sir we have no prædial larceny in that country." Mr. Ventresse also moved the following resolution seconded by Rev. J. Carnegie and unanimously carried :—Resolved "That this Branch Society recommends the Parent Society to procure a copy of the Law dealing with the evil of Prædial Larceny passed in the colony of British Guiana, where flogging has been introduced as part of the punishment meted out there for this crime and to make enquiry as to the working of the said Law, and its effects on the crime which we understand has been very effective in checking the evil." (2) *Juvenile Offenders :* The Instructor said this was a very important side of the question. He thought parents either from carelessness or from wilful encouragement made thieves of their children. He thought the parents should be summoned along with their children to show cause why they should not be punished and where they were found responsible in any way for the offence they should be fined. Mr. Ventresse said there was a law now that made it possible to summon parents who were found to contribute to the cause of their children stealing. Rev. C. R. S. Pike said, He was for some time chaplain at the Stony Hill Reformatory and he had come to the conclusion that that splendid institution had not proved as a reformatory to criminal boys. Prædial Larceny was practised inside the institution by the boys and honest boys were corrupted by their criminal associates. It would surprise the meeting when he told them that a large percentage of the boys trained there became habitual criminals. He therefore was not in favour of criminal settlement for juvenile offenders. (3) *Rural Headman :* Mr. Ventresse said he was opposed to returning to the Rural Headman as, in his opinion they were careless. He said he took exception to the imputation contained in Mr. Barclay's letter that D. C. S. com-

promised theft. He thought it was most reprehensible. Mr. Somerville said "The circular says '*tempted to compromise.*'" Mr. Ventresse said "I withdraw, but I fail to see that Rural Headmen will not be tempted too." This closed the discussion. Mr. J. O. Crooks said he could not keep the Society's pig on the conditions laid down by the meeting. He was asked to give it up and Mr. Phillips agreed to take him over. The Instructor then gave a talk on vegetable growing and the Secretary was instructed to spend 40s. for seeds from the Society's fund so as to put a good article on the market not only for members but for the entire district. The Secretary gave notice that at the next meeting he would move that a Special Constable be appointed for the Enfield District in place of Richard Hibbert, deceased. Meeting adjourned to 14th November at the Enfield Schoolroom at 9 a.m.—J. H. HEDLEY, Secretary.

Dallas and Constitution Hill (St. Andrew).—Regular monthly meeting was held at Constitution Hill on Friday, October 10th, commencing at 1.30 p.m. Present were:—J. L. Vickridge, Esq., in the Chair, Mr. A. P. Hanson, Agricultural Instructor, 23 other members including 2 new ones, one visitor and the Secretary. Minutes of last meeting were read and confirmed. As arising out of the minutes: Mr. J. Edwards raised the question of license on fire arms. He spoke on the great damages done to yam cultivations by the "Gold Finch," and the only thing he thinks can scare them is the gun. Even the smell of the powder has the effect of keeping them away. In this he was supported by about half the number of members present. The Secretary, Rev. Mr. Edwards, and the Instructor spoke acknowledging the harm done by these birds, but discouraged the desire to have fire arms used too freely. The President showed that the Government firmly objected to the free use of fire arms, and a resolution *re* Reduction of license on fire arms would most likely be futile. Finally, it was considered that the resolution may be sent to the next half yearly general meeting of the Parent Society. The Instructor spoke showing the danger in killing out certain pests which feed on other pests more harmful, he referred to the fact that the 'Gold Finch' is one of those birds that protect cotton. Continuing he gave some instructions on 'The growth of Cotton.' It was moved "That a boar be procured from the Hope Farm to improve our quality of pigs." The motion was seconded and after some discussion it was carried on condition. Mr. J. Edwards, Vice-President, undertook the care of it. Members will pay 4/- for service, the amount to be paid to the person having the care of the animal. Correspondence was next dealt with. The Society strongly recommends that Mahoe and especially Mahogany should be added to Schedule (a) of the Prædial Larceny Law 4 of 1909. The sale of cocoa in pods should be stopped by law as it not only encourages juvenile theft, but prevents the planter himself from getting fair remuneration from his crop. The alternative is to allow only licensed dealers to buy them in central localities. As regards "Prædial Larceny," the Society is of the opinion that prisoners are treated so kindly and fed so highly at the taxpayers' expense, that going to prison is more of an inducement than a deterrent to crime. A lengthy debate on the subject brought out the following points: (1) Much of the theft is done at nights (2) Many of the prædial thieves are not vagrants (3) There seem to be certain families in some localities of which every member is a thief. Cultivators should keep watch over their fields paying at times unexpected visits. People should keep watch also on suspected thieves, and make it difficult for them to live in the district. District constables and Authorized Persons should be liberally compensated for their services, so that they may be induced to pay more attention to their work. After further discussion on the subject the Society endorsed the suggestion, "That short term prisoners should be kept in the local jails, and made to work on the roads," and further suggested that they should be labelled "Thief." In the opinion of the members there should be a revival of the Rural Headman system. The revival of the system and the watchfulness of Authorized Persons and cultivators would ensure the detection of thefts and the thieves if punished in the district where the theft is committed would most likely fear the resultant shame and hard treatment. It was the general opinion of the meeting that it should be law. "That thieves caught in a man's field may be shot if he

attempt to run or do violence." Mr. Hanson then addressed the meeting. Among other things he said, "The duty of a cultivator is to study the art of cultivating." He spoke on the necessity of selecting health roots, stocks for planting banana fields. He felt sure he would succeed in his work here, having the support of the intelligent section of the community. He urged that the people should co-operate in the re-planting of trees The cedar seedlings offered at the Hope Gardens should be eagerly procured as they will improve the value of the lands. The leaves of the trees will also form manure. Citrus plants were also offered and would prove a help to all. He invited the members to attend the Stony Hill Show and encouraged them to prepare exhibits. Some hints were given on the preparation of coffee for market. At the close of his address he remarked that "A man's field is his pension in his old days." Vote of thanks was accorded him, moved by J. Edwards, Esq., and Rev. Mr. Edwards. Arrangements were made to send a bearer to Hope for cedar and citrus seedlings to be distributed at Constitution Hill on Monday, 20th inst., and at Dallas on Tuesday, 21st. Mr. Hanson will plant a few at Mr Wallace's field, by way of a demonstration, on Monday afternoon. Meeting closed with prayer at 6 p.m.—C. A. LITTLE, Secretary.

Smithville (Clarendon).—The regular monthly meeting was held on the 10th October, 1913, when there were present Messrs. W. A. Bryan, President, W. S. Reid and T. McLymont, Vice-President, Thos. Davis, Treasurer, S. A. Schleifer, Instructor, and forty-five members besides a great many visitors. A most cordial welcome was extended to the Instructor by the President, after which the minutes of the previous meeting were read and confirmed. The Instructor gave very valuable instructions on the getting up of the exhibits for the Show and answered very satisfactorily all questions on the Prize List of the Chapelton Show He informed the meeting that all profits from the Show will be devoted to the encouragement of agriculture in Upper Clarendon. It was agreed on to contribute two guineas towards the Show Funds. The Secretary then read letters from the Secretary of the Parent Society dealing with (a) Mahoe and Mahogany Bark, (b) Selling of cocoa in pods (c) Prædial Larceny. It was unanimously agreed to that Mahoe and Mahogany Bark and Tamarind should be placed on the Schedule for Prædial Larceny. Whilst the meeting believes that the sale of cocoa in pods encourages children to steal the pods, yet it does not consider itself competent to deal with this matter as the practice does not exist here. With reference to Prædial Larceny it was suggested:—1 That a strict Vagrancy Law be enacted and that vagrants be indentured on a Government Supervised Farm. 2 We recommend that the idea put forward by the Hon. Geo. McGrath of appointing Rural Headmen in each district, receiving a a fixed pay, be adopted. That these Rural Headmen be empowered to search premises where they suspect stolen articles to be concealed, as there are apparent honest persons who shield the thieves by allowing the stolen goods to be concealed in their premises as these premises cannot be searched without incurring great risk except through a Search Warrant, and sometimes these stolen articles are destroyed or disposed of before such a warrant is obtained. 3 All persons having over three convictions for stealing should be confined permanently on Penal Settlements established by the Government or during the pleasure of the Governor. 4 That juveniles be sent to Industrial Schools established for the purpose. 4 That the Crown Lands be recommended for the establishment of the farms referred to above. A resolution moved by Mr. J. Deacon and seconded by Mr. Peck, asking that a certain spring be declared a source of Public Water Supply was unanimously agreed to. The Instructor informed the members that there are about 45,000 cocoa plants at the Nursery ready for distribution. That those who receive plants should exercise very great care in planting. Make the holes 2 ft. in diameter. Plant in regular rows 12 ft. apart on hillside lands and 14 feet on level lands. Mr. Frederick Lottery was enrolled as a member. The Doxology was sung and the meeting terminated.—J. A. EDWARDS, Secretary.

Mt. Regale (St. Mary).—The regular monthly meeting was held on Friday, 10th October, 1913. The following were present, Messrs. C. A. Robinson, V.C., who presided, eight members and the Secretary. Minutes of the previous meet-

ing were confirmed. Secretary reported that Committee appointed to arrange for the new Post Office met, but an arrangement was made between the Post Mistress and her brother as to office, thus dispensing with the committee. Read letter from Parent Society *re* Prædial Larceny. 1 Under suggestion No. 1 this branch is of opinion that flogging is no remedy for prædial larceny. 2 Under this paragraph this branch agrees with the making of a strict vagrancy law as stated but disagrees with the indenturing of vagrants to planters as these will in the end feel a claim to that for which they laboured. 3 All favour suggestion that short term prisoners should be kept in local jails and made to work on roads. 4 *Re* District Constable or Rural Headmen the majority are of opinion that the present system of district constables is quite satisfactory. With the singing of the National Anthem the meeting adjourned to the 14th November.

B. THOS. ATKINSON, Secretary.

St. George's (Portland).—A special general meeting was held on Saturday 11th October followed by the usual monthly meeting. There were present: J. W. Hill, Esq., J.P., President, Hon. S. S. Stedman, M.L.C. for Portland, the Secretary R. A. Sutherland and many others. The President informed the meeting that at a meeting of the Managing Committee held on 14th September, a resolution was brought forward that the buildings be sold, and after paying expenses the balance be lodged in the Bank towards the next Show. After much discussion in which Messrs Thompson, Geddes, Stedman, Grant and Williams took part, two resolutions were adopted, one, that a Committee be appointed consisting of Rev. Thompson, Dunn and Geddes, with the Trustees of the Show Grounds for the sale of the buildings, and the other, that the balance remaining from proceeds of buildings be lodged in the Bank, in the names of Messrs Hill, Dunn, Stedman, Mason and Sutherland, and that no amount be withdrawn without consent of a majority of the members of the Society at a general meeting of the Society and that each member shall receive 14 days' notice to that effect, and the amount shall be withdrawn on the signatures of not less than three of the depositors. After the disposal of this business, the monthly Committee meeting was convened. The Secretary reported that the Society was in a favourable condition, both financially and numerically. The report of the Bangor Ridge Society was read, and showed progress. The members are still asking for the Society's help in pressing on the attention of the Government the need of a driving road into the district; other matters were discussed. It was decided that at the next Committee meeting the rules of the Society dealing with Sub-Branches be revised.—R. A. SUTHERLAND, Secretary.

Duanvale (Trelawny).—The regular meeting was held on the 13th Oct., 1913, Present: the Vice-President in the chair, the Instructor, Secretary eight members and a few visitors. The meeting was opened in the usual way with prayer by the Chairman, after which the minutes were read and confirmed. Matters arising out of the minutes were dealt with. There being a poor attendance, on the suggestion of the Secretary, the discussion of Mr. Reid's motion "That a corn mill be bought for the use of the Society," was deferred for a fuller meeting. In the matter of correspondence, the Prædial Larceny question which might have been dealt with, was deferred on the suggestion of the Instructor for a special meeting on the 20th inst. when outsiders can also be invited to give their opinions. In addition the Instructor thought that too much encouragement was being meted out to these thieves by many of their friends and relatives The Secretary read some seasonable hints from the JOURNAL. After the calling of the roll, a few other appropriate remarks from the chair, and the usual vote of thanks to the Instructor, the meeting closed with the benediction.—L. U. WELSH, Secretary.

Prospect (Clarendon).—The monthly meeting was held in the Chapel as usual on Monday 13th October. There were present twenty members and 2 visitors. The meeting was opened with prayer. After the confirmation of the minutes, two new members were elected. They were heartily welcomed by the President. Matters arising out of the minutes were dealt with, *re* the buying

of a pedigree pig by the Society. Communications from Mr. Barclay showed that the pig was not available until next January. Authorized Persons gave their report and Mr. Cuthbert complained that he had not been paid for work done. The reports showed that Prædial Larceny is rampart. The members complained of their cultivations being destroyed by pigs. The Society unanimously agreed to purchase two traps for the capture of pigs which persistently do damage. A short discussion on Prædial Larceny took place. A warm discussion *re* the need of a J.P. in the district followed. It was unanimously agreed that the Rev. E. A. Bell be nominated and a resolution to that effect be sent up to the Senior Magistrate. A special Committee was appointed to consider the matter fully. A most interesting evening was closed with the National Anthem.—L. A. CLARKE, Secretary.

Somerton (St. James).—The regular monthly meeting was held on the 14th Oct. at the Presbyterian School Chapel. The meeting was opened with prayer by J. E. Wilson, President The minutes were read and confirmed. There were twelve *members and many visitors present. Letter from Mr. J. Briscoe*, Agricultural Instructor, was read, and it was decided that the Secretary should write for Cocoa-seedlings to be distributed among the members of the Society. The President read letter from the Parent Society on Prædial Larceny. The various measures were proposed :—1. Juvenile thieves should be sent to Industrial Schools under strict supervision. 2. Adults, who are habitual criminals should be kept in Industrial Wards on wages, whereby a portion of their wages should go for their sustenance, and a portion to maintain their family, and portion to be given to them at the expiration of their term upon which they can subsist until work is obtained by them. 3. Strict Vagrancy Law should be enforced and extended, so that any one found idling should be arrested. The Government should let every man work by providing them work under strict and proper supervision. 4. *Work with better wages.* Many of the thieves start from the estates and pens. The labourers get the small wage of one shilling (1/) per day ; and even sometimes less. To make up for their maintenance these labourers steal a little sugar or rum which they sell 5. The Government should appeal to the sympathy of the proprietors to give better wages to the poorer class. 6. This Society wishes that District Constables and "Authorized Persons" be kept on ; because the Rural Headmen will accept compromises, just as much as the District Constables and "Authorized Persons" do at present. The appointment of Rural Headmen would be an increase of expense to the Revenue. There being no other business the meeting adjourned.—B. EDWIN REID, Secretary.

Lacovia (St. Elizabeth).—The regular monthly meeting was held in the school room on the 15th October at 5.30 p.m. Revd. H. A. Cover occupied the chair and among the other members present were Messrs M. H. Farquharson, J.P., Burthright, King, Cawley, Green, Lynch and J. A. Marshall, Secretary. The minutes of the last meeting were read and confirmed. The Secretary submitted correspondence received since the last meeting. (a) A post card from Mr. C. E. Isaacs stating that the Essex boar the Branch wanted to purchase was not available. (b) *A letter from Mr. Thomas Powell, Agricultural Instructor, regretting* his inability to be present at the meeting. Mr. Farquharson suggested that Mr. Powell be written to, inquiring the date and hour when he would be likely to visit the district as many members would like to meet him. This met with the approval of the meeting and the Secretary was accordingly instructed to write. The next letter dealt with was one from the Secretary of the Parent Society on the Prædial Larceny question. This being an important subject, the Chairman suggested that a special meeting be called to discuss it. He said he would like it to be on the day when the Instructor is present in the district, and all interested persons be invited to attend and have the matter thoroughly thrashed out. The last was a letter and circular from the Secretary of the Santa Cruz Branch informing the Lacovia Branch of the proposed Show to come off on January 1st 1914, at Northampton Pen, and soliciting help and co-operation of the Branch. The meeting promised its hearty co-operation. The Chairman suggested that

Dr. Simpson, the Health Officer for the Parish be written to, inviting him to give a letter on Sanitation, when all could be invited. Agreed. The Secretary was accordingly instructed to write to the Doctor asking what time would be most convenient and to give three weeks' notice at least. Mr. C. Egerton Smith, schoolmaster Burn Savanna, was a visitor and became a member of the Society. As it was now getting late the Chairman adjourned the meeting.

J. A. MARSHALL, Secretary.

Enfield (St. Mary).—The regular monthly meeting was held in the school room on the 15th October, 1913, at 3 p.m. Present were the Rev. W. S. Taylor, President, Mr. T. R. Beckford, Vice-President, Mrs. E. Heslop, Treasurer, J. Z. Johnson, Secretary and 15 other members of the Branch. The meeting was called to order in the usual manner, after which the President gave a detailed statement of the recent Agricultural Show that was held on the 14th August last. His statement showed that the Show netted £46 16s. 9d. and after paying out as prizes £13, and other expenses incurred in the working of the Show, there remained a balance of £10 2s. 1d. to the credit of the Branch. This statement was considered very satisfactory by the members. Vice-President Beckford congratulated the President. He said that this success was mainly due to the untiring efforts the President had put forth. Mr. R. P. D. McDonald spoke in the same strain. The minutes of the previous meeting were read and confirmed. As business arising out of the minutes the opinions of the various members on the best method of checking Prædial Larceny generally and the stealing of cocoa pods in particular was dealt with and the following are the recommendations of the Branch. 1. The meeting unanimously agreed that Licenses should granted only to responsible and upright persons and at recognized centres. 2. That the Produce Books should be strictly kept by every license holder. 3. That Authorized Persons should be empowered to inspect such books at any time from 6 a.m. to 6 p.m. And that persons purchasing cocoa pods earlier or later than such fixed time should be prosecuted and fined. 4. That no one should be allowed to sell cocoa pods without a permit authorising him or her to do so. 5. That besides inspecting the books Authorized Persons should be permitted to prosecute persons buying cocoa even in their own premises except being licensed. 6. That the cost of the Licenses should not be increased. 7. That Authorised Persons should be paid at the rate of 5s. per week and the pay to Rural Police discontinued as the former, in our opinion render greater service to the cause of Agriculture. 8. We would respectfully suggest in connection with this recommended payment, each Branch be asked to name the two most active Authorized Persons connected with their Branch, and that such payments be made only to them. There being no further business the meeting adjourned.

J. Z. JOHNSON, Secretary.

Spring Mount (St. James).—The regular monthly meeting was held on Thursday, 16th October, 1913. Present: C. A. McLeod, Esq., Vice-Chairman in the chair, eleven members, the Agricultural Instructor and Secretary. The minutes of the last meeting were read and confirmed. The Chairman gave an opening address and explained the chief business to be dealt with. The Travelling Instructor, Mr. Edmund Harrison also spoke explaining what was meant by correspondence read. After a lengthy talk the members agreed that the Law need not be revised but that the Police be more strict in that respect. That mahoe and mahogany bark be put on the Schedule (a) of Law 4 of 1909. The motion in connection with Prædial Larceny was adjourned until Wednesday 29th inst., when a special meeting will be held for that purpose. The meeting was at this point adjourned by the singing of the National Anthem.

EDWARD PERKINS, Secretary.

Bath, (St. Thomas).—The monthly meeting was held at the Schoolroom on Thursday 16th October, 1913. There were present Mr. J. Hamilton (in the chair), twenty-two members, the Secretary, and several visitors. The Secretary explained that for want of a quorum the September meeting fell through. The minutes of the August meeting were read and confirmed. A letter from

the Parent Society was read in reply to letters from this Branch respecting [a] "Authorized Persons" and [b] a Coconut Nursery for Bath. The subject of "Authorized Persons" was referred to the Instructor's Committee while the establishing of a Coconut Nursery for Bath was thought to be unnecessary. The Secretary was requested to point out again to the Parent Society the desirability of acceding to the unanimous wish of this Branch with respect to the Coconut Nursery and to ask that the decision of the Board of Management be reconsidered as parties are willing, as already pointed out, to pay for the seed-nuts. The correspondence between the Secretary and the Directors of the Bath Correspondence with regard to the question of a site for a market for Bath was read, the Directors agreeing to give for the purpose the piece of land formerly agreed upon for a School Garden at 5/- per annum, subject to the School Board agreeing to take a piece of land elsewhere in exchange for this spot. The Secretary informed the meeting that the Managers of the School Board had agreed to the exchange. He was instructed to write thanking the Directors of the Bath Corporation for their decision and informing the Parochial Board that the site was now at their disposal for the purpose of a market. The circular letter on the subject of Prædial Larceny was read and thoroughly discussed. A brief summary of its discussion is as follows :—(a.) No flogging should form any part of punishment for prædial thieves. (b.) The present Vagrancy Law was sufficiently drastic, but was imperative which was largely owing to an under-manned Police Force. (c.) No indenture to planters—large or small—was advisable. The expense of carrying this into effect would necessitate machinery that, under present circumstances would be prohibitive. Other reasons were given. (d.) Prison Farms and final settlements for adults were recommended and Industrial Schools for Juveniles. (e.) Prisoners should work on Public Roads and Works. The following resolution moved and seconded was unanimously agreed to: That in view of the ineffectiveness of the drastic laws relating to Prædial Larceny to bring about the desired results, this Society is of opinion that preventative measures be adopted and with that object in view, the Society recommends the following proposals :—1. The school age limit of 14 be abolished and be substituted by 16 years. 2. That Compulsory Education, so far as it can be applied in the present conditions of this Island, be made to apply generally throughout the whole Island, be made to apply generally throughout the island. 3. That the parents or other guardians of children under 16 years of age be made civilly responsible for larcenies by such children. 4. That arriving at 16 years these young persons be made to enter some institution such as Industrial or Farm Schools, of an educative nature for a period of 3 years.—That "Rescue Homes" be established throughout the island where absolutely indigent children could be cared for; that the Board of Management have discretionary powers as circumstances may permit. That it is very desirable that prædial thieves should be sentenced to short terms of imprisonment, and be made to work on public works generally. That penal settlements should be established in suitable localities all over the island for persons who have been three times convicted for prædial larceny within a space of two years. That the system of appointment of "Authorized Persons" be abandoned and the appointment of the Rural Police be resorted to, but that Rural Headmen be paid not less than 8/- weekly ; also that the regular Police be augmented to ensure better results of the working of the present laws. That a copy of this resolution be forwarded to the Parent Society." The following resolution moved and seconded was carried unanimously :—That the Agricultural Society of Bath having learnt with great regret that the Local Agricultural Instructor, Mr. A. H. Hoare has received serious injuries to one of his eyes, while in the performance of his duties which has necessitated his having to return to England on medical advice to undergo an operation, desires to place on record its high appreciation of the services which he has rendered to the community and hopes for his speedy recovery. That a copy of this resolution be forwarded to Mr. Hoare. Two new members were elected. The meeting adjourned to the 3rd Thursday, 20th, in next month.—G. R. GROVES, Secretary.

New Road (Westmoreland).—The monthly meeting was held in the schoolroom on Friday, 17th October, at 4 p.m. There were present Mr. J. Briscoe, Agricultural Instructor, who occupied the Chair in the absence of the Chairman, twelve members, the Secretary and two visitors who were subsequently elected members. Eleven other persons were elected members. This being a tobacco district the Instructor procured and handed to the Secretary for distribution a small quantity of the genuine Havana tobacco seeds and took great pains to instruct the members as to the time and proper method of sowing them. He was particularly careful to impress on the members that "water washed" tobacco was no good. Mr. Briscoe who had visited the district from Giddy Hall at 7 a.m. that morning was met by the Secretary and shown around the holdings of a large number of the members of the Branch. There he carried out demonstrations in the fields and had general talks with those who attended. The Instructor lectured on the growing of vegetables. He was quite at home and gave a great deal of information as to their proper cultivation, being particularly insistent on the necessity for a finely loosened and well manured soil if vegetables were to be grown profitably. *Re* Prædial Larceny. It was agreed to hold a public meeting in the schoolroom at 3 p.m. on Thursday, November 6th, for the purpose of discussing plans for the suppression of Prædial Larceny and to this meeting all those interested are invited to attend. This Branch contemplates the holding of a small Show amongst its members during March or April of next year and the Instructor and the Secretary are already busy over the preliminaries.

H. C. GOODIN, Secretary.

Upper Metcalfe (St. Mary).—A special meeting was held in Brainerd schoolroom on Thursday, 17th October, 1913, for the purpose of discussing the contents of a letter from the General Secretary *re* the suppressing of prædial larceny. There was a large turn out of members and visitors. Letter from Rev. Hastings expressing regret for his inability to attend was read. The Vice-President, Mr. S. N. Smellie, was asked to take the Chair. After prayer the Secretary was asked to state the object of the meeting. The letter from the Secretary of the Parent Society was read and free discussion followed after which the following resolutions were moved and passed unanimously. Resolved: That drastic measures be enforced in order to offer some deterrent to prædial thieves, and with that object in view would recommend the following. 1 That praedial thieves convicted more than once should be publicly flogged on entering prison. 2 That the Vagrancy Law be rigidly enforced to meet all cases of loitering so often met with in country shop places. 3 That vagrants should be indentured to planters as suggested in paragraph 2 of letter under discussion. 4 That Penal Settlements should be established for habitual criminals. 5 That more power be given to Authorized Persons to enable them to act in all cases where the services of a district constable is not readily procurable and laws are being violated. It was not thought desirable that short term prisoners should be made to work on the country roads, thus competing with honest labourers many of whom gain a livelihood by working on public roads. Produce Protection Law:—This law came in for its share of discussion, after which the following resolution passed unanimously. In view of the fact that the sale of cocoa pods in the district serve as a school of theft for unruly children. That as the picking of half green cocoa pods to ripen and sell is ruinous to the trade. Also as the practice of selling the pods does not in any way teach economy or thrift. Be it resolved: that the Government be asked to grant license only to central factories and to persons who read and write English: also that not less than 50 pods be sold at any one time. Resolved further: that each consignment be accompanied by a certificate of ownership. J. M. Martin, Luther Linton, as well as Mr. James White were nominated as Authorized Persons. The Secretary was instructed to write to the Parent Society for their appointment.—W. T. EDWARDS, Secretary.

Spanish Town (St. Catherine).—A special meeting was held at the rooms of the old Government Boys School, Spanish Town, on Wednesday evening the 22nd October when there were present, Rev. W. C. MacCalla, President, Messrs. Wm. Gentle, Vice-President, Everard Lopez, Secretary, Geo. A. Wright, Treasurer

and A. E. Phillpotts. The Minute Book of the Society being in the hands of the Assistant Secretary who was absent, the reading and confirmation of the minutes of the last meeting were deferred. One new member was proposed and elected. Presented and read the following correspondence from the Secretary of the Parent Society. 1 That communications to his office are not post free, but only outgoing matter, noted. 2 That names of the three new members elected at the last meeting of the Branch were duly noted. 3 That the Hon. Director of Agriculture had been asked to supply the number of copies of the Bulletin *re* Banana Diseases asked for by the Secretary of the local Branch Society. The Secretary was requested to convey the Branch's thanks for the Bulletins which had since reached his hands and to distribute them among those members immediately concerned in Banana cultivation. 4 That he had no seeds for free distribution, but Branch Societies can always get them in 3d packets with one extra to each dozen. The Secretary was requested to acquaint accordingly those members who had applied to him for seeds. 5 That the Branch's Application Fee for the current year was overdue and should be promptly paid. The Treasurer was requested to forward to the Secretary of the Parent Society as early as possible the fee, so as to enable the members to get their JOURNALS regularly. The President moved that the date of the monthly meetings of the Branch be changed for the future from the second Wednesday in each month to the first Wednesday, so as to ensure the proceedings of such monthly meetings being published in the JOURNALS. The motion was unanimously carried. After the payment of certain dues by the members the meeting adjourned until Wednesday the 5th November.

EVERARD LOPEZ, Secretary.

St. Thomas (Planters' Association).—A special meeting was held at the Parochial Board Room, Morant Bay, at 3 o'clock on Wednesday 22nd Oct., 1913, when there were present: A. C. Bancroft in the chair, ten members and the Secretary. Two members wrote expressing regret at not being able to be present. The meeting was called to consider and make suggestions to the Government. 1. *Re* Produce Protection Law, 2. Prædial Larceny, 3. Authorised Persons. The circulars from the Secretary of the Parent Society dated 27th September, *Re* Prædial Larceny and another of 2nd August 1913, *Re* Produce Protection Law was also read and considered paragraph by paragraph and the following conclusions were arrived at on each subject. Moved and seconded. 1. That Prædial Larceny thieves on the second conviction should be flogged at a public place and set free. An amendment was moved and seconded That after the word flogged "Imprisoned" be added and the words "at a public place' be struck out. After considerable discussion the amendment was put to the vote and lost. The original motion was then put to the vote and carried by 7 to 2. Paragraph 2 *Re* Vagrancy was then considered and the following unanimously carried. 2. That in the opinion of this Association the Vagrancy Law is sufficiently strong but is to a great extent inoperative owing to an insufficient Police Force and it is further of opinion that if properly enforced by the Government, prædial larceny and vagrancy to a great extent will be diminished. 3 Adult vagrants after the second offence should be made to labour on "Public Works." 4. Juvenile vagrants to be punished as at present. 5. Vagrants should be tried in Petty Sessions. Paragraph 3. 6. Short term prisoners should be kept in the local Jails and be made to work on the Roads. Paragraph 4. 7. We recommend that there should be in certain defined districts a "Head District Constable" who should occupy the same position as the old "Rural Headman" and that he be paid not less than 30s. a month, further that all District Constables and Authorised Persons in such defined districts should he under the supervision and direction of such "Rural Headman."

PRODUCE PROTECTION LAW.

After discussion it was unanimously resolved: 1. That some revision is necessary. 2. That Produce Buyers' Books should at all times be open to Inspection by any Constable in uniform without an order from an Inspector or Justice of the Peace. 3. That no License be given to any but responsible persons who must be able to read and write English and to be able to properly

keep the necessary books. 4. That no person under the years of 12 years be allowed to sell or offer for sale produce of any kind. 5. That proper buying centres be established after consultation with the local exporters in each Parish. 9. That the License for Class 1 be as at present £2 per annum. For Class 2 and Class 3 £5 per annum. That mahoe and mahogany should be added to Schedule (a) of the Prædial Larceny Law 4 of 1909.—A. E. HOLLIS, Secretary.

Cambridge (Woodford).—A special meeting was held on the 23rd Oct., 1913, The President of the Society called the meeting to order with prayer. There were present many members and a goodly number of the public. As a remedy for Prædial Larceny the following suggestions in addition to those contained in circular from the Parent Society were made and agreed to unanimously :—1. That more care should be taken with the juvenile population of the Island in :—*a* The Elementary Schools of the Island should take more rigid steps to inculcate honesty among the pupils. *b*. That after the children have left school after the age of 14, those whose parents could not provide suitable work for them, should be taken over by the Government, and their services utilised by the Government at some institution established for that purpose where trades etc. may be learnt. 2. That the Government be asked to open up, as much as it possibly can do, relief works whereby money might be circulated, which might act as a remedy in some measure. 3. That a prædial thief should be sent away to a prison farm. If his behaviour be good, he might be allowed to return home; but on a second or third offence he should be kept on the farm for penal servitude. The following resolution was moved, seconded and carried after much discussion: That His Excellency the Governor be asked to further amend the Prædial Larceny Law, whereby a Constable, Rural Policeman or Authorised Person can enter any premises or lands on which he has indication, suspicion or trace of stolen goods having been taken, and there make a search without a Search Warrant. At this point the meeting adjourned with prayer.

D. ALOLPHUS SMART, Acting Secretary.

Maldon (St. James).—Friday 24th Oct. A meeting of the Maldon Branch of the Agricultural Society. There were present: Rev. R. G. Chambers, President, Mr. S. C. Reid, Corresponding Secretary and 12 other members. Minutes of last meeting were read and confirmed. Items arising out of minutes were dealt with. It was decided that the time to hold the regular meeting be changed from the third Friday in each month to the second Friday. A Local Show was discussed and it was decided to have one in March, 1914. A concert will be held on the 2nd December, the proceeds to help the funds of the Society. A letter from Mr. Barclay, the Secretary of the Parent Society, was read, the following Clauses were dealt with. 1. Whether or not, flogging at the Police Station is the proper remedy to those who were convicted of repeated offence. As a Society we do not agree with flogging. 2. A Street Vagrancy Law, whereby all persons found continually loitering, and apparently not independent, should be treated as vagrants, and indentured to planters for a certain term. We fall in if the Government will make suitable arrangements to keep those persons under proper restrictions. 3. That short term prisoners be kept in the Lock-up and work on roads. We say in Lock-ups and Local Jails so that the roads in districts may be worked also. 4. That the present district constables are only paid by results and there is a great temptation to compromise, therefore we should return to the old system to pay 5s. per week to Rural Headmen so that they may be called upon to work. The meeting voted for the old system suggestion. That prison farms may be established, and that one be made at Maroon Town in this Parish. Roll call. National Anthem was sung. Meeting adjourned. S. CORNELIUS REID, Secretary.

St. Paul's (Westmoreland).—The regular meeting was held at St. Paul's schoolroom, Little London, on Monday, 27th October, at 7 p.m. There were present Mr. R. C. Somerville, Agricultural Instructor, Messrs. Wm. Broomfield and B. E. Smith, Vice-Presidents, R. A. Salmon, Secretary, and 14 other members and a fair number of visitors including a lady. Mr. Broomfield presided who opened the meeting with prayer. The minutes of last meeting were read and

confirmed. Messrs. Alfred Guthrie, David Goffe and Hubert Barwise were elected members. The Secretary read replies received from the Secretary of the Darliston, Bethel Town, Lamb's River and Lucea Branches re Resolution sent them on the subject of Prædial Larceny. They were all in sympathy with the resolution, and promised their support. The letter from the General Secretary on Prædial Larceny was read and discussed, and the Secretary was instructed to write expressing the ideas of the meeting. The Secretary next gave a report of the appointment of Mr. Reuben Blake as an "Authorized Person." The member received the congratulations of the meeting. Two other persons were at this stage nominated to the position viz: Messrs. Joseph Williams and Joseph Barrett. The Treasurer's Report was read by the Secretary in the absence of the Treasurer and adopted. The Instructor then proceeded to address the meeting on Prize Holdings. The address was punctuated with a certain amount of humour and at its close the lecturer received the hearty thanks of members. There was a discussion immediately after this, on the following:—"To manufacture sugar from the canes or to sell the canes to the factory, which is the more profitable? Messrs. Constantine Williams, B. Smith and Wm. Broomfield spoke, but it was then decided to defer the matter till next meeting. The sum of 8/- was voted to procure seeds for distribution amongst members in the putting in of catch crops. The Instructor promised to ask the Managing Committee of the Westmoreland Show for the sum of £25 to obtain seedling coconuts for persons who required same in different parts of the Parish. Subscriptions received amounted to 10/6. Date of next meeting was fixed for Monday, December 22nd, 1913, and the National Anthem being sung the meeting terminated.—R. A. SALMON, Secretary.

Bloxbergh (St. Andrew).—The regular monthly meeting was held, October 28th. The President took the Chair; 14 members present and Secretary. Minutes of the last meeting was read and confirmed. Various items from the minutes were *argued and plans adopted which was satisfactory to the members, also* Rat Exterminator or E.X.O. was distributed to members, also I beg to inform you that our number has decreased, some left the island and have failed to pay in their subscriptions others fail from payment to the time. Fix our registered number at 48. Please send 47 copies of the JOURNALS instead of 48.

S. ROBINSON, Secretary.

Maidstone (Manchester).—The last regular meeting of this branch was held at Nazareth on Tuesday, 28th October at 3 o'clock. There were present Rev. J. E. Harvey, President, Rev M. C. Morrison, Vice-President, Mr. Thomas Powell, Agricultural Instructor, 21 regular member, 6 visitors and the Secretary. The minutes of the previous meeting were read and confirmed. At this juncture the President gave a right hearty welcome to Mr. Powell, the new Instructor. The Secretary read letter from the Secretary of the Agricultural Society respecting Mr. Powell's appointment, as well as making clear an Instructor's duty. Mr. Powell on rising expressed his pleasure on seeing so fine a gathering, and returned thanks for the hearty welcome received. He stated that he would do his best by visiting of cultivations and assisting cultivators with advice and practical demonstration in their fields. He next read letter dealing with "Authorized Persons" and made clear some difficulties that had arisen. It was moved by the Revs. W. C. Morrison and seconded by Mr. Jacob Powell (a) That for future nomination of "Authorized Persons" they be drawn from among the members of the Society. That present "Authorized Persons" who are not members of the Society be asked to become members. The Secretary next read a letter from Mr. Barclay on Prædial Larceny dealing with the various measures that have been proposed for the checking of the evil. 1 *Re* Flogging. This branch records its opinion against flogging in general principle, but favours it in exceptional cases. 2 *Re* Vagrancy Law. That the present Vagrancy Law be put into effect. For Juveniles. Agreed that Industrial schools be established for such. *Re* Short term Prisoners. This branch favours their being kept in the local jails as formerly; but records its disapproval to making them work on the roads, as that would be depriving honest labourers of their *bread.* It would suggest that *some productive employment be given them* such as working on a Prison Farm, if established. 4 *Re* Old Rural Headmen System. It favours a return to the old Rural Headman System and that Rural Headmen be required to do night patrol duty. I am instructed to add that this branch views the Prædial Larceny evil as a deep-rooted "sore" and in its opinion nothing of what is proposed goes to the root of the "sore." It being six o'clock the meeting adjourned, but will meet again on the 28th November when the evil will be considered from its many sides.—J. A. MAXWELL, Secretary.